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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

EDITED BY

G. F. STOUT,

WITH THE CO-OPERATION OF PROFESSOR H. SIDGWICK, PROFESSOR W. WALLACE, DR VENN, AND DR WARD.

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PSYCHOLOGY AND PHILOSOPHY.

I.—HEGELIANISM AND ITS CRITICS.

By Prof. A. Seth.

Professor Jones has a bitter quarrel with the critics of Hegelianism, and those whom it pleases him to call Epistemologists. He has poured out the vials of his wrath in two articles in Mind, and as it would appear from these that I am the wickedest of the wicked Epistemologists, it seems fitting that I should make some reply. To speak more seriously, I am sincerely obliged to him for the searching criticism to which he has submitted my articles in the *Philosophical Review*, and the opportunity he thus affords me of restating my positions with further explanations. It was with a view to elicit such criticism that this tentative form of publication was adopted. For what appeared in the *Philosophical Review* formed part, I may explain, of a third course of Balfour Lectures, dealing with the Theory of Knowledge, and delivered in the spring of 1891. As I did not feel that the treatment of the subject was complete, or even in all points free from difficulty, I adopted this method of publication with a view to benefit by such criticism as might be offered, and in order to think out the whole question more fully. Since then my own reflexion has convinced me that some of the expressions used require explanation and modification, and I need not say that my sense of this need has been quickened by the image of my supposed theory in Prof. Jones's glass. If such misconceptions are possible, I

am ready to admit that the fault must lie, to some extent at least, in the ambiguous nature of the phraseology used; for I should not dream of charging Prof. Jones with wilful perversion, nor, on the other hand, can I admit that an argument, which, in the sense in which it was intended, is to me manifestly true, and which has commanded the assent of many whose judgment I value, is a superfluity, and a tissue of fallacies. But though I do not accuse Prof. Jones of knowingly perverting my meaning, I cannot acquit him of frequently interpreting that meaning according to his preconceived notion of what that meaning must be. This is very manifest in his persistent identification of my position with 'Subjective Idealism' and 'Sensationalism'. The finer shades of philosophic theory are notably absent from the average Hegelian mind, and just as the Hegelian arrogates to himself (most unjustifiably) the exclusive title to the name Idealism, so any one who deviates from the beaten track of his own formulæ is at once branded as a Sensationalist in disguise. Prof. Jones's articles betray this bias, and I think that if he had interpreted certain of my statements less in view of this simple antithesis, and more in accordance with the whole context of my articles,[1] which explains and qualifies them, he might have found that the problem I was investigating was a real one, not to be closured by a dilemma. But he found in my articles the Sensationalist whom he went out to see, and he belabours him with a will.

Prof. Jones's second article, in which he unfolds his dilemma and seeks "to cut the very root" of Epistemology, seems to me the really important part of his contention. It is, indeed, a very close and searching piece of argumentation. But before proceeding to deal with it, I must touch upon certain points in the first article, which is more general in character, and is in the main a defence of Hegelianism against recent critics. These critics are apparently identified as Lotzians and Neo-Lotzians, and to judge from the quotations and allusions, I am here also in the forefront of the offenders. The article concludes with a revised version of the Hegelian theory, in which it is satisfactory to note that some of the criticisms have gone home. But I venture to think that in its anxiety to repudiate the charge of sub-

[1] In this connexion I regret that Prof. Jones had not before him the concluding paragraphs of the lectures as spoken. I think he could not fail to have gathered from them a truer view of the nature and purpose of my argument. They appear in the January number of the *Philosophical Review*.

stantiating knowledge and putting it in place of reality, Prof. Jones's theory arrives at the remarkable result of denying knowledge altogether. I will endeavour to explain my meaning presently.

But at the very outset it may be well, in view of a masterful statement of Prof. Jones, that I establish my right to criticise. "The duty to criticise," says Prof. Jones, "must be based on a right to criticise, and that right can only be derived from some consecutive and ultimately constructive theory of existence." I desire to protest most strongly against this convenient but wholly unwarrantable assumption. We do not all carry theories of existence in our pockets, but surely it is open to every one to point out the inadequacies or the contradictions of any given theory that is submitted for his acceptance. I would answer Prof. Jones in the fine words of Mill in a somewhat similar reference: "If I am asked what system of philosophy I substituted for that which, as a philosophy, I had abandoned, I answer, No system; only a conviction that the true system was something much more complex and many-sided than I had previously had any idea" (*Autobiography*, p. 161). *These* words express, moreover, precisely the attitude of many critics of Hegelianism. Hegelianism, I venture to say, is often stated by its English representatives so vaguely that any thinker, not a materialist or a pure sceptic, could acquiesce in the general position. But definitely to embrace a philosophical theory, implies satisfaction with the line of argument by which the result is reached; it implies acceptance of the argument as a demonstration, and a belief founded upon insight that the theory accounts for and includes all the facts. Now many critics hold that, as a theory, Hegelianism runs far in advance of insight, and that there are awkward facts in the universe to which it cannot be said to do justice. It is surely open to critics in these circumstances to call for reconsideration, for a wider and more elastic theory. Some of them are content to believe where they cannot prove; but if pressed by Hegelian dogmatism, they are equally entitled to take up the purely critical attitude of a suspension of judgment. As Kant says: "When delusive proofs are presented to us, it is our duty to meet them with the *non liquet* of a matured judgment".

The first general remark I would make on Prof. Jones's criticism of his critics concerns the extremely ingenious, but really extraordinary, nature of the defence set up. It consists of neither more nor less than attributing to these critics the very positions which they have consistently and emphatically

censured in Hegelianism. Having readily shown the absurdity of these positions (much as the critics themselves do), Prof. Jones holds up the critics to ridicule for the views thus fathered upon them, and so prepares the way for the triumphant entry of his own New Hegelianism, amended so as to meet the real objections of the critics. Even an Epistemologist will turn when such treatment is meted out to him. And I honestly cannot describe otherwise than I have just done, Prof. Jones's statements about 'the world of ideas,' a belief in the substantial existence of which he strangely insists on attributing to 'the critics of Idealism'. I speak, of course, only for myself, but it passes my comprehension on what Prof. Jones can have founded this strange theory of his opponents' position. I can only conjecture from certain allusions that it is derived from the chapter in Lotze's *Logic* (book iii. chap. ii.) on 'The World of Ideas'. But if so, the perversion of Lotze's statement is more than I find easy to explain. The very object of the chapter is to contrast the timeless identity of significance which belongs to a concept, and the eternal validity which belongs to a truth, with the existence which belongs to things, or the occurrence which we predicate of events. "Reality of existence is enjoyed by ideas," says Lotze, "only in the moment in which they become, in the character of objects or creations of an act of presentation now actually occurring, members of this changing world of being and becoming; but, on the other hand, we all feel certain in the moment in which we think any truth that we have not created it for the first time but merely recognised it." This contrast between validity and existence is fundamental to Lotze's philosophical position, and forms the basis from which he criticises the popular hypostatising of the laws of nature as real entities, and the more subtle hypostatising of abstract thought in some forms of the Hegelian philosophy. If there is one position, therefore, which is more foreign to Lotze's mind than another, it is the conception of a world of ideas as 'existential realities'.

As regards my own position that could hardly be in doubt. What I have most strongly attacked in the Hegelian philosophy, both in the concluding lecture of *Scottish Philosophy* and throughout *Hegelianism and Personality*, is just its tendency to hypostatise thoughts or categories and thus to put knowledge in the place of reality, or "to construct the world out of mere universals"—"to deduce existence from pure or abstract thought". I have traced this tendency in Hegel himself; that forms the substance of my chapter on 'Logic

as Metaphysic,' which impeaches Hegel's identification of the two. I have shown its continuation, naked and not ashamed, in his followers of the Left: I have repeatedly laid my finger upon traces of the same tendency in his English exponents. Everywhere I have insisted that to speak of the existence of thoughts without a thinker is a meaningless phrase. "Thought exists," I say, to quote a single passage, "only in the thought of a thinker. . . . To thought *per se*, we can attribute neither existence nor causal activity; and this being so, it can have no place in metaphysics as a theory of Being." And again, in the more recent articles in the *Philosophical Review* in the context of one of the passages which Prof. Jones employs for his own purposes, occurs the sentence: "Knowledge [knowing] is an activity, an activo-passive experience of the subject".

More than this it was hardly possible to do in the way of stating an opinion clearly and emphatically. Yet Prof. Jones turns upon the critics of idealism and declares to them with much emphasis, presumably as a piece of novel information, that "what exists is a series of mental operations, activities of reality, as manifested in the subject who thinks and in the conditions within and without him which make his thinking possible. There are thinkers and things thought about; but there are no third entities. The mental processes performed by individuals do not leave behind them any products which can be regarded as having the apparent independence and real existence of things." There is a certain satisfaction in seeing one's own views expressed almost in one's own language, but there is also a feeling of topsy-turvydom in seeing them elaborately proved as a refutation of one's own contentions.

Passing from this ingenious but curious method of controversy, I should like, in connexion with my own criticisms of Hegel, to make a tolerably obvious remark. All philosophical criticism concerns itself with the implications or legitimate consequences of a statement rather than with the meaning which the statement presumably bore to the thinker who gave it currency. This is why philosophical polemic bandies about so freely the charge of 'absurdity'. In reading an opponent's account of any position, the wonder of the reader is how any man out of Bedlam could be got to propound such transparent impossibilities; whereas presumably the author of the theory attacked was just as sane as his critic, never dreamt of denying the patent facts adduced against him, and had a

reasonable and tenable meaning in the theory he propounded, if we are content to take it in the sense and in the connexion he intended. His affirmations and denials require in that case to be interpreted not absolutely, but in relation to the theories of which his own is the outgrowth, or the critical opponent. The positions which he emphasises are supplemented and supported in his own mind by a mass of presuppositions which he holds in common with his opponents, and which he passes over in silence, because it does not occur to him that any one would dream of calling them in question. But ideas, as Hegel says, have hands and feet: once launched upon the world they soon go alone. What was qualified in the mind of the original thinker by a multitude of unspoken considerations, comes to be taken by his less intelligent followers in its bare unqualified literalness as an absolute verity. And the critic who is writing in the interests of what he considers truth, and is not merely tracing the historic evolution of opinion, is bound to take the formula in the same way, in order to develop the consequences which will follow from it, if so interpreted, and thus to demonstrate its inadequacy. Only so can he prepare the way for a more adequate and carefully guarded formula. I fancy we shall all be agreed that this is a fair account of what actually happens, and this, I should like to say, is the sense in which my criticisms of Hegel and Green are to be understood, when I say, *e.g.*, that Green's "Eternal Consciousness or Spiritual Principle is no more than a *focus imaginarius* into which the multiplex relations which constitute the intelligible world return". So again, when I say of Hegel that he reduces the world to pure thought or abstract categories, clothed with a dynamic or creative power—that "his language would justify us in believing that the categories actually take flesh and blood and walk into the air,"—I am not to be understood as saying either that Hegel was a fool and that he excogitated transparent absurdities, or that the Hegelians were so inexorable in their logic and so airily unsubstantial in their needs as literally to put Hegel's twenty volumes in place of "all the mighty world of eye and ear," not to speak of the world in which we dine and sup. But whatever his meaning, I have contended that the form he gave to it was misleading, that if his words are to be taken with any exactitude, our deductions from them would necessarily be of the description indicated. We can escape from such conclusions only in one of two ways. We may either evade the natural interpretation of the awkward passages and take the whole position in

a highly vague and indefinite sense,[1] or we may, as Prof. Jones now does, come forward with a modified form of expression and insist that that is the true rendering of Hegel's meaning. A certain meed of gratitude would seem in the latter case to be due to the critics who have been the 'occasional cause' of the rectification.

But Prof. Jones, as I understand him, denies that the tendency complained of exists in the Hegelian statements; he denies that Hegelians have ever tended to the confusions indicated, and accordingly the well-meant warnings of the critics can only seem to him impertinences. Early in his paper he does indeed say that he "would be loath to assert that Idealists have at no time given colour to the charge that they have confused the distinction between knowledge and reality in one or other of its various aspects" (p. 294). But some pages further on he declares that the interpretation of God and man and the world as *thoughts* is as foreign to Idealism as their interpretation into rings of smoke (p. 303), and apparently (p. 305) treats "the preposterous mistake of taking knowledge of reality for reality itself" as a charge which has no justification, save in the disordered imagination of the critics themselves. It is simply a perversion of Hegel's meaning and of the meaning of his idealistic followers (p. 306). "No 'Hegelian,' 'Neo-Hegelian' or 'Neo-Kantian' would hold that his ideas are the things which they represent" (p. 293). I do not quite see how Prof. Jones's first admission is to be reconciled with the brave words in the latter part of the article, nor do I see how this emphatic disavowal can be reconciled with such statements as the following from Mr. Haldane and Mr. Ritchie, who are as accredited representatives of Hegelian thought and tendencies as Prof. Jones himself. "Knowledge," says Mr. Haldane (MIND, vol. iii. p. 576), "is the ultimate reality, embracing existence within itself. The individual is a moment in its dialectical development." "What is any individual thing," asks Mr. Ritchie (*Philosophical Review*, i. 278), "except a meeting-point of universal attributes? Qualities are all universals." And again (p. 270), "a thing really is—that way of thinking about it which fits it into its place in an intelligible system of the universe". Now as the critical analyst of the article remarked at the time in MIND (vol. i. p. 439, N.S.) what Mr. Ritchie really proves (and what he doubtless intended to say) was that a thing really is, not any particular way of thinking

[1] Hegel seems, for example, to say on one occasion that his own elaborate phraseology means no more than the ancient position that Nous rules the world.

about it, but "what it must be thought of *as being*" in order to fit it into its place in an intelligible system of the universe. But in Mr. Ritchie's own statement, we have precisely exemplified the tendency to confuse knowing and being, to maintain their 'identity,' as the phrase is, in place of their necessary relation. The same tendency is seen in Mr. Ritchie's question: "What is any individual thing except a meeting-point of universal attributes? Qualities," he adds, "are all universals." Yes, and every universal is, as such, an abstract, while all existence is individual and concrete. The abstracts, if exhaustively enunciated, are a correct description of the thing, but they do not *make* the thing by 'meeting' in a point. "Even an atom," I once ventured to say, "is more than a category." "What is an atom," Mr. Ritchie replies, "except a category—a conception by help of which we may find it convenient to make the world intelligible to ourselves?" (MIND, vol. xiii. p. 257). Certainly the atom may be spoken of as a category, just as every word we use is a universal, but is the world itself, then (supposing it to consist of atoms), no more than a set of categories or conceptions? I do not suppose Mr. Ritchie would make such an assertion, but he comes dangerously near saying so in the very next sentence. "If the reality of things consists in their being composed of atoms, then it follows that their reality consists in their being thought." Taken in connexion with the sentences already quoted, this seems to mean that their reality consists in the conceptions by which we think them. And this is precisely the insidious tendency which I have criticised in the English followers of Hegel and Green. These extracts appear to me to show that Prof. Jones was better advised in his original admission than in his subsequent disclaimers. I might also recall to him the palmy days of the seventies, when Green's influence swept the universities. "Relations," as I well remember, was then the password of all the more ardent spirits, and we triumphantly explained the universe to ourselves as a complex of relations, unified in an eternal consciousness. To the last Green denied any reality to sensation. A historical review might also have reminded Prof. Jones that the reduction of life to logic actually took place in some of the boldest of the Left Wing thinkers, calling from Dr. Hutchison Stirling the not wholly unnecessary protest that "neither Gods nor men are in very truth logical categories," and drawing from him the admission that even Hegel himself in his *Logic* "lays a misleading stress on the abstract universal". Dr. Stirling's whole note on "Pantheism and Paganism" in the *Schwegler*

is instructive in connexion with the hypostatisation of 'thought' or 'the idea' or 'knowledge'; and what he says of the master I may be allowed to say with some truth of the followers.

A further historical review, even if conducted on the principle of dialectic triplicity, might have suggested that there must be something defective or one-sided in the exclusive stress laid by the Hegelian Idealism upon thought. "Die Weltgeschichte ist das Weltgericht": that is sound Hegelian doctrine. How then, if Hegel is flawless, are we to explain the emphatic protest made by Schelling, Schopenhauer, and Hartmann, not to speak of Herbart, Weisse, Lotze and others, against this reduction of existence to essence—against the substitution of the formal universal of knowledge for the concrete individual of fact? No doubt many of these fall back into the opposite extreme of asserting a reality unrelated to thought, a reality which, therefore, becomes ultimately an unknowable. But their opposite one-sidedness does not invalidate the soundness of their protest against the inadequacy of the Hegelian theory; and the very existence of these thinkers, differing widely among themselves in most points, but agreeing in what may be called their Realism, should be sufficient proof of the need for a revision of the Hegelian theory and a more careful statement of the philosophical position. But if the original theory has been proved, by the incontestable evidence of history, to suffer from the taint or bias which has been indicated, and if the same bias constantly tends to re-invade the statement of it even at the present day, it would surely be much better, after due acknowledgment to "the critics," to try to embody in a reconstructed theory what is true in their contention than to insist on identifying 'Idealism' with Hegelianism, and to reiterate the stale charge of failure to understand what Hegel really meant. A mode of controversy which assumes that all truth is to be found in Hegel, and that there is nothing but error in the world without, must necessarily be barren of result. It savours, besides, too strongly of the procedure of an infallible Church to commend itself to the modern mind.

But the most interesting point in the article is that Prof. Jones himself is careful to speak of reality rather than of Thought with a capital T to which we have been so long accustomed. Even Green's Eternal Consciousness figures less prominently. Idealism, we are told, is "a theory which represents the universe as a thinking activity" (p. 294); and again, the task of Idealism is "to investigate the nature of

a single real principle and to trace its activity both in outer facts and in thinking individuals" (p. 303). To Hegel, "the Universe was not a system of thought, but a thinking reality" (p. 301). "To evolve things out of ideas is a manifestly hopeless endeavour. Out of thoughts can come nothing but thoughts. If Hegel and his followers, old and new, have attempted this task they are convicted, in my opinion, of manifest absurdity" (p. 302). Most true, I say, but what then of the celebrated transition from Logic to Nature —the "Sich-entschliessen" of the Idea to pass out of itself and masquerade in 'materiature'? Once more, in Prof. Jones's version, "Hegel starts from the conception of a reality which is all-inclusive, manifesting itself both in the knowing subject and in the known object". . . . "Hegel thought to take his stand *behind* these alternatives on the reality, the All, which manifests itself in both of them" (p. 304). And a little further on we find Reality elevated in due form to the dignity of a capital letter. In this way, Prof. Jones traverses in the course of his article the whole distance that separates Green's abstract self, or principle of unity in relation, from Mr. Bradley's revised version of the Absolute in his *Appearance and Reality*. Ten years of reflexion and discussion are represented in the change which Prof. Jones makes *sub silentio* without acknowledgment to the critics, insisting, indeed, rather unhandsomely that it is no change at all.

But it seems to me that in his zeal to escape from the suspicion of asserting a self-existent system of thoughts—a world of ideas—he has fallen into a strange extreme, converting his Hegelianism into a kind of Materialism which leaves no room for knowledge or thought at all. I am far from supposing that this is *meant*, but it would be the immediate consequence of what is *said*. Ideas, he tells us, are not between us and reality; they are "the working of reality" in us (p. 305); they are "definite facts or special elements of the real world of objects" (p. 295). "There are no ideas except those which occur serially. Each of these ideas is a transient psychical phenomenon" (p. 300). "Each of them exists as long as it is being produced and no longer. They are evanescent products of an intelligent activity, which vanish when the process that brings them forth stops" (p. 296). "Logic would no longer seem to be an analysis of the relations of ideas to one another, but an exposition of intellectual processes. It would not be a theory of abstract conceptions but an ontological inquiry, just as the physical sciences are" (p. 301).

Now, that we cannot escape from reality and that ideas are themselves the working of reality in us, is most obvious. To avoid any misunderstanding on the point, I had myself explicitly indicated the wider and all-inclusive meaning of reality, in which the knowing activity is itself a part or function of reality. Prof. Jones quotes the passage in his second article. But ideas in this respect, as mere fact-sequences, cease to be considered as *cognitive* at all. We work, as in science, with the category of cause and effect, investigating the causes which have produced these facts, and the further fact-combinations to which they in turn give rise. This is the province of psychology. And in the department of psycho-physics (which some would regard as a distinct science) psychology cannot avoid carrying its causal explanations into the external world. But to say that a mental process is the result of certain physical processes is very different from saying that the mind knows certain real facts. In the one case, we move altogether in a world of causally interacting facts: the psychological events and the physical and neural events form one world of objects in which we endeavour to establish connexion according to law. In the other case, we have to do with the unique relation of knower and known, a relation which Prof. Jones would probably be the first to insist is far from being explained by its category of cause and effect, but whose nature none the less requires to be investigated, although it turns out to be a unique and ultimate relation. Psychology *assumes* the cognitive reference of ideas, but it does not investigate it. This latter investigation is what I mean by the epistemological, as distinguished from the psychological manner of dealing with ideas. Prof. Jones admits the validity of the distinction. "The distinction between ideas as mere occurrences in consciousness and ideas as having objective reference," he says, "seems to me quite valid. Mr. Bradley has succeeded in putting this matter beyond reasonable dispute" (p. 297). Now surely if there are these two aspects of ideas (inseparable but quite distinct) it must be legitimate to distinguish between psychology, which regards them altogether in the one light, and a science (the name of which, as Logic, Epistemology, or Theory of Knowledge, is of minor importance), which regards them altogether in the light of their objective reference or meaning.

It is certainly by "a process of abstraction" that we limit our point of view in either case, but the possibility of any science rests, as Prof. Jones knows (and as he tells us, if

I mistake not), on the possibility of abstraction. No doubt the process of abstraction "becomes vicious if taken as ultimate," but who, I ask, proposes to take it so? Prof. Jones thinks it necessary to tell us that ideas "are not divisible into two parts, one of which perishes, while the other has permanent existence". And he adds, with all the emphasis of italics: "The objective reference is an essential characteristic of *every* idea as a phenomenon of consciousness and inseparable from it". This is a fresh example of Prof. Jones's favourite method of producing, as an incontrovertible argument against his opponent, the very truths upon which the latter had laid stress. Psychology and epistemology are contrasted, I say, "in their mode of dealing with the *same* subject-matter" (*Philosophical Review*, i. 130). Again, ideas "are *all* subjective functions or psychical events. But they may also be considered 'as images of which one represents one thing and another a different'" (p. 132). Prof. Jones's pleasantry, therefore, about mental states falling "into two fragments, one of which is seized by psychology and the other by epistemology" (p. 462), falls itself somewhat heavily to the ground. And again when Prof. Jones informs me that ideas, regarded as knowledge, as meanings, are not "existential realities," but rather "consist of hypostatised abstractions," I am forced to reply: Exactly; that is the very point which Mr. Bradley drives home in numberless passages of his *Logic;* that is not only my own position but, as it happens, it is a position on which I laid stress in view of certain vagaries of Hegelian statement. Ideas treated as meanings are all universals and all universals are abstractions. But the power of framing these abstractions, of using the content of consciousness in this symbolic fashion, is just the ultimate meaning of knowledge. If we are to talk of existence, most certainly the idea only exists as often as it is realised in some consciousness. That is what I have strenuously contended for, as already explained, against those of Prof. Jones's own household. To be quite strict, the same idea (in this sense) never exists twice: there is only a second like it. "There are no ideas except those which occur serially." They perish with the process of knowing, and they can never be called into existence again. But why repeat Prof. Jones's repetition of Mr. Bradley's conclusions about which we are all agreed? It is more to the point to remark that it can serve no good purpose to throw together in this way the side of content and the side of existence (so Mr. Bradley very well distinguishes them in *Appearance and Reality*). It would be far better, as I have suggested, to use the word

'idea' exclusively with reference to the content or meaning, and to select some other phrase, such as conscious state or psychical complex, for the Heraclitean flux of mental events. We should then have no difficulties about identity and similarity, for an idea is the same (for logic or epistemology) when its content is the same, and that content is a timeless abstraction. In some ways it is less misleading to speak of ideas as timeless than to speak of them as serial and transient. For if to exist is to be a particular thing or a particular event in time, then ideas as meanings do not exist at all.

If, therefore, we insist, as Prof. Jones does in the latter part of his article, on taking ideas merely on the side of their existence, and regarding them merely as time-processes in the real, we eliminate their cognitive aspect altogether, or at least in consistency we should. Psychology takes its place "with Botany or Physics or any other special science that deals, under its own appropriate hypothesis, with definite facts or elements of the real world of objects" (p. 295). "The attitude of 'Hegelians and Neo-Hegelians' towards thought is that of science towards natural processes. Their explanation of thinking is as ontological as the physicist's explanation of gravitation. . . . They are as frank in their ontological intentions, as little troubled with epistemology and the sphere of ideas, as if they were Materialists" (p. 302). They have in truth gone back to the materialistic or purely objective treatment of phenomena, which abstracts altogether from the fact of knowledge. Thinking, we may say, is an activity of the real which takes place in this or the other "finite centre" (in Mr. Bradley's phrase), but the mere fact that an activity or process takes place in any centre, subject or medium, is far from implying that the process or the subject of the process has a knowledge of other processes or media, or even of itself. A set of occurrences, dependent upon other occurrences, but by no means cognitive of them or of itself—this, it seems to me, is all we can legitimately reach by this 'frank,' 'physical,' 'ontological' way of dealing with thought or thinking. A psychology of a sort *might* be possible; a logic, never. For logic has nothing to do with the occurrence of ideas—the laws of their causation, recurrence and fusion; it has to do with relations of content, with the (timeless) relations of idea-meanings to one another. To say that there is no science of the relations of ideas to one another in this sense seems to me to be either unintelligible or a wilful perversion of language. Hegel's Logic is an eminent example of such a science, and though Prof. Jones

insists that it is to be taken as "a science not of the connexions of ideas but of the operation of mind," Hegel himself repeatedly describes it as moving in a realm of abstractions—as a kingdom of shades, a timeless, dialectical evolution of conceptions. In other words, he would not have scrupled for a moment to describe it as a science of the connexions of ideas, and he would have been as much at a loss as I am to see what was gained by Prof. Jones's distinction.

As far as I can gather, what Prof. Jones has really at heart and what underlies much of his vehement assertion and denunciation in the latter part of the article is simply that knowledge is doubly related to reality or experience: (1) it is a product of reality (in the widest sense of that term), and not an *a priori*, and Melchisedek birth from nowhere in particular, and (2), this being so, it is presumably applicable to reality, or descriptive of reality, and not a systematic falsification of reality. These are positions which I believe to be necessary and which I have nowhere impugned. But the fact that knowledge is thus "essentially related" to reality, need not blind us to the distinction or duality, even apparent opposition, which is implied in all relation, and which the history of speculation shows, preeminently attaches to the relation between knowing and being. It is clear enough that this relation, however essential, does not mean "*identity* of knowing and being," unless we use words so vaguely as to make them unmeaning. It is clear also that the relation of thought to reality does not for a moment preclude the possibility of a disinterested investigation of the contents of thought as such. If Logic is not such "an analysis of the relations of ideas to one another," there is to my thinking no need for distinct terms at all: the same name will do for everything in turn. And I will not deny that "Hegelian" thought sometimes shows a tendency towards this consummation.

These seem to me the chief points of interest in Prof. Jones's first paper, and I think I have shown in the foregoing remarks (1) The ingenious injustice of Prof. Jones's method of replying to the critics of Hegelianism; (2) The substantial validity of my own criticisms, as shown among other things by Prof. Jones's change of front; and (3) The dangerous overstatement into which Prof. Jones has been betrayed by his new-born zeal for reality and by his desire to outdo the critics on their own ground. It now remains to deal with his second paper, and here, as I recognise his criticisms to have more foundation in fact, my method of

reply will be less polemical, and the result, I hope, more fruitful.

II.

The substance of the second article consists of a cleverly constructed dilemma, evolved by Prof. Jones from a statement of mine that "subjective states are plainly our datum". In the light of Prof. Jones's misinterpretation, I am constrained to confess that the phrase may not have been well-chosen, but, in the first place, it has no such prominence in my exposition as it seems to acquire from Prof. Jones's repetition of it; and, in the second place, the whole of my argument, more particularly in the second of the four articles, may be taken as a refutation of the objectionable sense in which Prof. Jones chooses to understand it. Prof. Jones, in fact, has fastened upon a phrase (more or less unfortunate perhaps) which lent itself to his preconceived opinion of what my position must be, rather than kept in view the drift of the discussion as a whole.

The meaning which Prof. Jones puts on my assertion is, that I propose to make a start with subjective states known as such, devoid of objective reference, and from these, as a datum or indubitable foothold, to pass, by some process of inference, from an internal world of ideas to an external world of facts or realities.

He begins by emphasising my general position that knowledge is to be distinguished from existence, or, as I expressed it in one connexion, that the real and the ideal spheres never interpenetrate. This enables him to evolve the following dilemma: We start *either* with the idea of our subjective states, that is to say, with the mere knowledge of them, *or* we start with the subjective states as real, that is, known as real. In the first case, Prof. Jones supposes the Epistemologist to start outside of reality altogether—to start with a 'world of ideas' and to essay a leap from this non-existent 'ideal sphere,' in the hope of alighting in the real sphere of thinkers and things. And he rightly brands this as an impossibility, speaking of "the endless and hopeless puzzle of getting out of thoughts by means of thoughts". If we start with the idea of our subjective states, we are still strictly shut up within the circle of our ideas and cannot in any wise break through to reality. The knowledge of subjective states serves us no better in this respect than the knowledge of any other part of the universe. We are as far as ever, therefore, from the solution of "the hopeless puzzle"

in which Epistemology professes to find its problem. In the second case, it must be held that the knowledge of our subjective states furnishes a case in which the real and the ideal coincide: we do know reality at that one point. But if so, then we have already broken through the charmed circle of ideas; we are *in* reality from the outset, and the Epistemological problem of the relation of knowledge to reality has disappeared. Reality is one and continuous, and our only inquiry can be about "the relation of one reality to another".

The dilemma, however, falls to the ground with the misinterpretation of my meaning on which it is based. If Prof. Jones had read my second article with any care, he could not have failed to see that the whole of that article was a refutation of the subjective idealism which he attributes to me. I do not see how the disavowal could well have been stated more strongly. "We do not begin by studying the contents of our own mind and afterwards proceed by inference to realities beyond. We are never restricted to our own ideas, as ideas; from the first dawn of knowledge we treat the subjective excitation as the symbol or revealer to us of a real world" (p. 507). I quote with approval Mr. Spencer's dictum: "I see no alternative but to affirm that the thing primarily known, is not that a sensation has been experienced, but that there exists an outer object" (p. 507). "We cannot even imagine," I say again, "a consciousness without the objective reference" (p. 509). In truth, I cannot but think that Prof. Jones, in his strictures on my imaginary views, has fallen a victim to "the psychologist's fallacy" which is commented upon in the context of the passages just quoted. He confuses, that is to say, the attitude of the reflective critic of knowledge with the unreflective attitude of the plain man in knowing anything. Both these attitudes, taken apart, are intelligible and consistent, but the result of confusing the two is the hybrid and impossible position assigned by Prof. Jones to "the Epistemologist" of his fancy. The plain man simply knows: his knowledge reveals realities to him—his own reality and the reality of other persons and things—and he is entirely occupied with the nature of these objects and their mode of behaviour to one another. He has never doubted the real or objective reference in knowledge. In fact, he has never thought of knowledge as a subjective process at all; least of all has he ever thought of his own conscious states as a first-known reality from which he passes in the second place to extra-conscious existences. But now comes the reflective thinker

(call him simply the philosopher, if Epistemologist is a term so hard to digest) and raises the question of the rationale of all this. How is such an experience, such knowledge, possible? What are the conditions of the possibility of the fact of knowledge as it appears to exist? In putting this question, the Epistemologist by no means aims at taking up a position outside of reality altogether, in a sphere of mere ideas, from which he seeks in vain to escape, alighting by a flying leap out of the Nowhere upon the solid world of fact. Nor does he balance himself upon a single isolated fact and seek to throw a bridge from it to other facts. Knowledge and reality are both his data, or, if you like, knowledge of reality is the fact he investigates—the apparent knowledge of ourselves and other things which we all possess. Reality or experience as a whole is his datum or problem; he starts in this sense from the world as it appears to common-sense. The *apparent* facts, I say, are his datum, but they are also his problem; for he has to ask whether, as common-sense states them, they are not mere appearances, and how they must be interpreted and restated if they are to be really possible. Now, I do not think that Prof. Jones will deny that a fundamental aspect of the appearance with which critical reflexion has to start, is that all knowledge, so far as we know anything about it, takes place in individuals, or, as Mr. Bradley says, in finite centres. And science, if not common-sense, assumes that it is the result of, or somehow depends upon, a series of events taking place in a particular individual. The question, therefore, assumes the form—How is it possible for that which, in one aspect, is a particular process of events in a particular individual, to yield a true knowledge of a system of reality stretching on all hands beyond the moment of time occupied by the mental process itself as a bit of existent fact?

And in this sense it seems to me that subjective states, meaning by that simply states of the individual, may be intelligibly said to be a datum or foothold from which we start. Subjective states known as such are on precisely the same footing as other objects, and cannot, therefore, be said to constitute in any special sense a point of departure. On this I am at one with Prof. Jones. But these same states, as they originally occurred, do undeniably constitute the *milieu*, the element, the fact-basis of knowledge. The individual surely stands related to his own experience in a way in which he is related to no other facts in the universe. He *is* that experience or process: these states are his existence, and though he may know the whole universe by their means,

these particular states surely do not constitute the existence of the known universe as they constitute the existence of the individual who knows that universe. We immediately experience or *live* no more of the universe than what (in Mr. Bradley's language) burns in this one focus. This is our one point of contact with reality, or, to put it otherwise, we exist and know at all just because reality lives in us in this series of experiences, focuses itself in the continuously moving point of life which constitutes our self-existence.

This truth seems to me so obvious that I hardly know how to argue it,[1] and though I admit (or rather contend all through my articles) that it has been the parent of a whole brood of errors in the shape of subjectivistic and relativistic theories of knowledge, that is no reason why we should refuse to recognise the fact. We cannot refute a theory with more than a polemical *succès d'estime*, unless we do justice to the element of truth which it expresses in a mistaken form. And subjectivism and relativism, we may take it for granted, would not be so persistently put forward and so widely accepted, if they did not embody some aspect of the facts. The sensationalist limitation of consciousness to a series of individual states and the Hegelian expansion of consciousness to include all reality are, I think, both true in what they mean to assert, but both misleading and inexact in statement. It seems to me one of the functions of epistemology to investigate the precise sense of such statements and to disentangle the truth and falsity they contain. The subjectivistic theory, I need hardly say, appears to me to embody a comparatively insignificant aspect of the truth, and to be far more radically misleading in the inferences drawn from it. It was against this class of theories far more than against Hegelianism, if Prof. Jones will believe it, that the course of my argument was directed. It was necessary to this argument to admit in the fullest sense that states of the individual, in the sense explained, constitute the inevitable starting-point in our knowledge of the universe—the basis on which the whole is reared. But this inevitable

[1] As Prof. Jones quotes Mr. Bosanquet with respect against the critics of idealism, he may perhaps find his statement of the truth more persuasive, or at least less open to suspicion. "The real for every individual is—an extension and determination of his present perception, which perception is to him not indeed reality as such but his point of contact with reality as such" (*Logic*, vol. i. p. 3). "Reality is given for me *in* present sensuous perception and *in* the immediate feeling of my own sentient existence that goes with it. The real world, as a definite organised system, is *for me* an extension of this present sensation and self-feeling by means of judgment" (*Logic*, vol. i. p. 77).

admission was immediately deprived of its power for mischief by an explanation of the precise sense in which it must be understood.

I began by pointing out that all through modern philosophy, the philosophers had been setting the subjectivity of knowledge as a process in the individual against its objectivity as a true account of the nature of things. It was then shown that if knowledge was to exist at all, the subjectivity of the knowing process was inevitable: in the nature of the case no other alternative was conceivable. Unless, in order to know a table, it was necessary actually to be that table, a distinction must be recognised between my subjective experiences in knowing and the object revealed to me by them. But this distinction in existence (or ontologically, *pace* Prof. Jones[1]) constitutes the very need for knowledge in the case of an individual limited, *quâ* existent, to his own centre—to the locus, as it were, assigned him in the process of the universal life—and limited also, as regards his own existence, to the present moment of time. Many thinkers, however, for want of distinguishing clearly between the necessary self-transcendence in knowledge and the impossible self-transcendence in existence, have denied to the individual a knowledge of anything more than his own states.

All through my articles what I endeavour to press upon such thinkers is just the self-transcendence involved in knowledge as such. It must be pronounced absurd, I argue, to treat the essential nature of knowledge as an argument against its validity. In the last resort the subjectivistic theories, if we take them literally, must be held to deny the

[1] It is in this connexion that the sentences about a chasm occur, which Prof. Jones finds so enigmatical, the chasm being asserted in one sentence to exist and in another not to be absolute. Chasm is perhaps a "violent metaphor," but the sense is tolerably obvious. "Ontologically or as a matter of existence they [*i.e.*, the knower and the object of his knowledge] remain distinct—the one here and the other there— and nothing avails to bridge the chasm." In other words, knowledge is not an entity reaching out from me to the thing, or coming from the thing to me, and uniting us (welding us into one), so far as our respective existences are concerned. In knowledge I am not ontologically mingled or identified with the things I know. The chasm here refers only to this distinctness of individuals within the one reality. For I go on to explain that "both subject and object are members of one world. This may be taken as the ultimate and unavoidable presupposition" and so "the chasm is not an absolute one," as it would be if the knower and the object known belonged to two different universes—the knower being either conceived as outside reality altogether, or the things known being conceived as essentially unrelated to intelligence and therefore as remaining to the end essentially unknowable.

fact of cognition altogether. I have remarked in my fourth article upon their substitution of the ambiguous term "experience" for the plainer term "knowledge". A being restricted to its experience, simply as its own experience, would be destitute of the cognitive function altogether. The enumeration of successive states, simply as such, would constitute the universe of such a being, if *per impossibile*, the subjective idealists could be taken at their word, and a world constructed accordingly. The main purpose of my whole argument was thus to vindicate the validity of knowledge against such thinkers by laying bare the confusion on which their impeachment of knowledge rests—the confusion, namely, between the particular facts or processes in the individual consciousness on which knowledge rests, and that knowledge itself *quâ* knowledge and in its essence objective or self-transcendent. I am far from thinking that I have in this way proved by knowledge the validity of knowledge; I am familiar with the time-honoured jest about learning to swim without venturing into the water. But it is possible, by an analysis of the ultimate essence of cognition, to show by a species of *reductio ad absurdum* the ineptitude of current, and to some extent plausible, attempts to deprive our knowledge of objective truth. After such attacks are repulsed, it remains for us to accept knowledge as we have found it on analysis to be; and to accept it as an ultimate fact not further explicable—a unique, and, in one sense, all-embracing fact.

It only remains for me to say that I designedly limited my argument to what seemed to me the simpler case of a knowledge by one being of another. I am inclined to think now, in view of the interpretation which has been put upon the argument, that this may have been unwise. But in any case I expressly stated in the opening sentences that "knowledge is marked by exactly the same characteristics, even in what is called self-knowledge, the reflective knowledge of one's own states; in which the act of knowledge and the object known might seem to fall together"; and what the discussion which follows actually establishes is the distinction to be drawn *in every case* between the process of facts on which knowledge depends (which in one aspect *is* the knowledge, though the expression is unfortunate), and knowledge properly so called. And the distinction, once established and fully grasped, is easily applied to the facts of self-knowledge. For my own existence, as past and future, as more than the immediate "this-now," is evidently only representatively or ideally present to consciousness. It is an

ideal construction on the basis of the "this-now," just as much as the existence of any other being in what we usually call the external world. What is present *in* consciousness, what alone exists in the sense of immediate experience, is only the this-now of a present state. In this sense I think we shall all be agreed that the self, as known, is, in Mr. Bradley's phrase, a secondary formation. But we must be even more exact. For it may be said that, though the existence of myself as past or future is an ideal construction, yet at any rate in the experience which constitutes my present self, the ideal and the real coincide; here, at least, there is an identity of knowing and being. We know the present state directly it may be said, and that is the one sure fact we begin with, "hopping on to others and assuring them through it," as Prof. Jones puts it. Such a statement, however, is not adequate to the complexity of the facts. For it is evident, to begin with, that it is only the psychologist who, in his reflective self-knowledge, can be said to know mental states at all. The ordinary man *has* mental states, and knows objects by means of them, but he does not make his own states his object. If, therefore, we are to use knowledge in a strict sense, our knowledge of our own states is exactly on the same footing as our knowledge of anything else. Let there be no mistake here. Wherever knowledge exists, it is in a sense direct; that is, I know the reality and not some substitute for the reality intervening between me and it. When I reflect on my own states and when I perceive a tree, my attitude to the object of my knowledge is in both cases the same: I simply know it. But, on the other hand, the mental state which goes to constitute the act of knowing (in which the act of knowing consists) is no more to be identified with the object known in the one case than in the other. All introspection, it has been said, is retrospection, or, as Prof. James puts it, it is a *post-mortem* examination. When I know a state, that state has already ceased to exist as a living pulse of thought and feeling. I recognise it as having been mine, but it is different from the psychologically-minded self, intent upon its examination. It is impossible to get rid of the subtle aspect of difference which knowledge introduces. What we know is always an *object*, something held as it were at a distance from us, opposite to us: the object of knowledge is always somehow different from the subject that knows. And in the apparently immediate self-knowledge which we are considering this plainly holds.

Yet this account of knowledge is still defective at one

point. For knowing, as Prof. Jones insists, is an activity of a subject, and as such is not a colourless or impersonal function—as it were a series of happenings *in vacuo*. Every cognitive act is suffused by feeling (pleasure or pain, interest or the reverse), and in virtue of this suffusion it is felt by me as mine, by you as yours. In knowing any object, therefore, whether a thing in the external world or a state of his own mind, the knowing subject possesses, in this element of feeling, an immediate assurance of existence there and then. When formulated, this assurance takes the personal form, certainty of his own existence, but the formulation does not take place, of course, till a later stage, when the individual in question becomes psychologist and philosopher. The certainty, however, which the formulated proposition possesses depends entirely upon the original feeling of existence —the sense of living, as we might call it—which accompanies every mental state. I feel the activity, the experience, at the moment, and in virtue of this immediate accompanying feeling I afterwards acknowledge it as mine.

It appears to me that the relation of knowledge to reality cannot be adequately considered without some reference to this immediately felt presence of reality in each knowing subject. That relation requires to be considered from two points of view. They are both included in the following statement of Mr. Bosanquet in the beginning of his *Logic*—a statement which, so far as I can see, I should have no difficulty in accepting. "The truth . . . may be considered, in relation to the human intelligence, as the content of a single persistent and all-embracing judgment, by which every individual intelligence affirms the ideas that form its knowledge to be true of the world which is brought home to it as real by sense-perception." From the one point of view knowledge is a system of predicates; and the truth about reality —the *truest* account of reality, if the expression is permissible—is to be found at the furthest remove from pure immediacy, in the most complete and satisfactory synthesis which philosophy has to offer. Moreover, we cannot overstep our knowledge to compare it with any reality beyond; the only possible test of the truth of our knowledge is its internal coherence, the fact that it works out, and that there are no refractory facts or aspects of experience which refuse to be worked into a system. But, on the other hand, the truth is true of reality: and that there should be any reality at all, of which it could be true, depends on the immediate assurance — the self-feeling, as Mr. Bosanquet elsewhere calls it—which accompanies our experience. This is not at

the outset self-feeling in the sense of being the feeling of a self in opposition to a not-self: that would be to introduce later distinctions into a primitive datum. It is the mere feeling of existence which is afterwards formulated as the assurance of *my own* existence—an assurance which cannot be separated from the presence of some object, and which is progressively intensified as the object is further defined. A philosophy which tries to escape from the acknowledgment of existence as somehow immediately given, seems to me to be constantly in danger of putting a system of predicates (which as predicates are necessarily abstract) in place of the subject to which they refer. Unless we are immediately rooted in fact somewhere, our whole system is in the air; there would be no world to explain, no subject to attach our predicates to.

There remains the question as to the distinction between epistemology and metaphysics, or the possibility of epistemology as a distinct branch of inquiry. Prof. Jones praises Hegel because "he has no epistemology and he needs none" (p. 306), and in his second article he concludes: "Epistemology as an inquiry into the validity of knowledge in general is an impossible science" (p. 467). But in another place he says: "I do not deny the possibility of a theory of knowledge in every sense. I deny *this* theory of knowledge because of the abstraction which is vital to it and at the same time fatal to it" (p. 459), and his own ideal appears in what he says at the conclusion of the paragraph about pressing home the hypothesis and categories of epistemology and identifying it with metaphysics. So in the first article he says that to philosophers of the true sort "their Ontology must be a Logic" (p. 303); "Logic would be itself an Ontology or Metaphysics as Hegel conceived it" (p. 301).

The first set of statements depends largely on his own misapprehension of the attitude assumed in the inquiry—the notion, in fact, that epistemology proposes to take up a stand outside of reality altogether. This point, I think, has been made sufficiently plain. We are really much more at one here than might be supposed, for I say Amen to every word of the lecture which Prof. Jones proceeds to read upon the impossibility "by knowing to pronounce upon the validity of knowledge as a whole".[1] So that, if epistemology is

[1] If it were not to digress too far into a merely personal matter, I might refer him to *Hegelianism and Personality*, pp. 90-1, which is almost verbatim in accord with his own strictures. "Thought," I say, "cannot ultimately criticise its own validity. To do so would require a second species of thought to sit in judgment upon our first or actual thought,

to be taken as a demonstration of the validity of knowledge in general, I fully admit that a science of epistemology in that sense is impossible. I would even go the length of saying that in an ideal state of philosophy the epistemological prolegomena in which I have indulged might be superfluous. An absolute system of metaphysics solves such questions by implication for all who accept it. And if one were philosophising simply as a private luxury and saw one's way to such a system, why, one would simply give a synthetic statement of the system and be done. This is to a large extent Hegel's attitude, for which Prof. Jones commends him, and undoubtedly it was the attitude with which metaphysical speculation began. The early philosophers attack the facts without more ado, unhindered by any scruples as to the capacity of knowledge to grasp them and give a true account of them. But in course of time this "frank," dogmatic procedure became "sicklied o'er," as Prof. Jones knows, with the pale cast of doubt. Scepticism, relativism—subjectivism in all varieties—became rampant, and they are rampant at the present day. Perhaps there never was a time when so many philosophers were confused about the possibility of real knowledge, through misconceptions as to the very nature of knowledge. They make impossible demands of knowledge, virtually saying that we cannot know a thing without being the thing—and because these demands are not met, they impeach the validity of knowledge in general. I thought, and I still think, that an attempt to drag this fundamental confusion to light was likely to be of service to some. The object of such discussion is the refutation of error, and its result is to throw us back on the validity of knowledge as an inevitable assumption. But I do not think that the discussion can be called otiose, because it brings us back to our starting-point; for the making explicit of assumptions is the main business of philosophy. Whether you treat such a discussion as a preliminary to your metaphysical system or as an appendix to it, is of little moment; the question discussed is at least "manifestly preliminary" to the subjective idealist or the relativist at whose conversion you aim. If you insist on including it as a part of metaphysics, the whole dispute becomes a question of naming. For my own part, I think that it would probably

and a third thought to test the validity of the verdict thus obtained, and so on *ad infinitum*—a species of never-ending appeal as wearisome as fruitless. The trustworthiness or objective validity of one thought is, and must be, an assumption." A few lines lower down I speak of "an impossible criticism *ab extra* of thought as such".

be better to use the term ontology rather than metaphysics as an antithesis to epistemology, for the traditional associations of metaphysics are too comprehensive to admit of its being used in any more restricted sense. And even as between epistemology and ontology I should not like to maintain too sharp a distinction between the two branches of inquiry, for ontological considerations may undoubtedly be appealed to in the epistemological investigation. I have myself referred to the assumption that the universe is in some sense one, as constituting the real possibility of knowledge, on the part of one individual, of any other beings at all. But the fact remains that the two inquiries possess a general character of their own which constitutes a sufficient distinction in practice. Prof. Jones's second article is itself a contribution to the already vast literature of Epistemology as distinguished from systematic Metaphysics.

II.—IMITATION: A CHAPTER IN THE NATURAL HISTORY OF CONSCIOUSNESS.[1]

By Prof. J. Mark Baldwin.

Imitation is a matter of such familiarity to us all that it goes usually unattended to: so much so that professed psychologists have left it largely undiscussed. Whether it be one of the more ultimate facts or not, suppose we assume it to be so; let us then see what we can explain by it, and where we may be able to trace its influence in the developed mind.

§ 1. We may make it a part of our assumption—what I have endeavoured to prove elsewhere[2]—that an imitation is an ordinary sensori-motor reaction which finds its differentia in the single fact that it imitates: that is, its peculiarity is found in the locus of its muscular discharge. It is what I have called a "circular activity" on the bodily side—brain-state due to stimulus, muscular reaction which reproduces the stimulus, same brain-state again due to same stimulus, and so on. The questions to be asked now are: Where in our psycho-physical theory do we find place for this peculiar "circular" order of reaction; what is its value in consciousness and in mental development, and how does it itself arise and come to occupy the place it does?

If the only peculiarity about imitation is that it imitates, it would follow that we might find imitations wherever there is any degree of interaction between the nervous organism and the external world. The effect of imitation, it is clear, is to make the brain a "repeating organ"; and the muscular system is, as far as this function goes, the expression and evidence of this fact. The place of imitation in life development is theoretically solvable in two ways, therefore: (1) by an exploration of Nature and mind for actual imitations, and (2) by the deduction of this function from the theory of repetition in neurology and psychology—this latter provided we find that Nature does not herself present enough *de-facto* repetitions to supply the demands of neurology and psychology. If this last condition be unfulfilled—that is, if Nature

[1] This paper gives, in a summary way, some of the positions developed further in a volume entitled *Mental Development in the Child and the Race*, announced for early publication by Macmillan & Co.

[2] *Science* (N.Y.), 1891, p. 113.

do actually repeat herself through her stimulating agencies, light, sound and so forth, sufficiently often and with sufficient regularity to secure nervous and mental development—then imitation is probably a side phenomenon, an incident merely.

Without taking either of these questions in the broadest sense, I wish, while citing incidentally cases of the occurrence of imitation, to show the importance of repetitions and of the imitative way of securing repetitions, in the progress of mind.

§ 2. If it be true, at the outset, that organic development proceeds by reactions, and if there be the two kinds of reaction usually distinguished, *i.e.*, those which involve consciousness as a necessary factor and those which do not, then the first question comes: in which of these categories do imitative reactions fall? Evidently in large measure in the category of consciousness. If we further distinguish this category in as far as it marks the area of conscious life which is "plum up," so to speak, against the environment—directly amenable to external stimulation —by the word "suggestion," we have thus marked off the most evident surface features of imitation. Imitation is then, so far, an instance of suggestive reaction.[1]

§ 3. Now let us look more closely at the kind of consciousness, and find its analogies. A mocking bird imitates a sparrow, a beaver imitates an architect, a child imitates his nurse, a man imitates his rector. Calling the idea of the result, as we look at the result (not as the imitator may or may not look at it), the "copy," we find that we are forced

[1] It is not necessary, I think, to discuss in detail the meaning of this much-abused but, in the main, very well-defined word—"suggestion". I have myself defined suggestion as "from the side of consciousness . . . the tendency of a sensory or an ideal state to be followed by a motor state" (*Science, loc. cit.*), and it is "typified by the abrupt entrance from without into consciousness of an idea or image (or a vaguely conscious stimulation) which tends to bring about the muscular or volitional effects which ordinarily follow upon its presence" (*Handbook of Psychology*, ii. 297). Janet says it is 'a motor reaction brought about by language or perception,' *Ant. Psych.*, p. 218; Schmidkunz: 'die Herbeirrufung eines Ereignisses durch die Erweckung seines psychisclien Bildes,' *Psych. der Sugg.*; Wundt: 'Suggestion ist Association mit gleichzeitiger Verengerung dis Bewwsstseins auf die durch die Association angeregten Vorstellungen,' *Hypnotismus u. Suggestion*, Abs. ii.; Ziehen: 'In der Beibringung der Vorstellung liegt das Wesen der Suggestion,' *Philos. Monatschefte*, xxix., 1893, p. 489. It is so marked a fact in current theory, especially on the pathological side, that I have found it convenient to use a special phrase for consciousness when in the purely suggestible condition, *i.e*,. "reactive consciousness" (*ibid.*, pp. 60 ff., and chap. xii.). The phrase "conscious-reflex" is not good as applied to these suggestive reactions: for they are cortical in their brain seat, and are not as definite as ordinary reflexes.

to consider the psychological elements involved very different in these four cases. This copy as defined in our minds, we are forced to think, is also clearly defined in the mind of the man, it is rudely defined in the mind of the child, it is not defined at all in the mind of the mocking bird, and in the mind of the beaver it is something else which is defined, and rudely. These cases are ordinarily distinguished by mutually exclusive words, *i.e.*, in order: volition, suggestion, reflex reaction, instinct. Yet this one thing they do have in common, a constructive idea which we see objectively, and which each, in its result, repeats. It will be profitable to inquire into the origin and significance of this "copy" in each of these cases.

§ 4. In the case of simple imitative suggestion we find what seems to be the most evident and schematic type. Here we have a simple visual or auditory copy shedding its influence out into the world in a reaction which repeats the copy. But we find other reactions side by side with it which do nothing of the kind. Psychologists classify these reactions under the heads of instincts, impulses, reflexes, volitions. Now it is not making very great assumption in view of current theories, to hold that imitations repeated become reflexes (reflex speech, the walking reflex, &c., for example), nor to hold that reflexes when repeated, consolidated, and inherited, become instincts; nor yet again to hold that instincts when snubbed, contradicted, and disused, are broken up into impulses. Then impulses consciously indulged, ratified, and repeated, in opposition to snubbing, evidently become volitions. If we did find it possible, at present, to admit these assumptions, and to give names to the two processes involved, calling the "repeating" process the *law of habit*, and the "snubbing" process the *law of accommodation*, we would have a suggestive line of thought based upon what is actually the state of things in the most advanced neurology. Yet we must not forget that both these principles are in operation at once, and we have a possible twofold derivation of each term in the series. For example, looked at from the point of view of accommodation, or phylogenetically, as Ziehen points out, impulsive actions are due to the breaking up of instincts; but on the side of habit, or ontogenesis, they come by volition. The dispute as to the origin of instinct may be settled from this twofold point of view.[1]

[1] "We may suppose instinct to have arisen, first, by a modification of nervous reflexes by suggestion . . . and second, by the lapsing of intelligent voluntary reactions, into secondary-automatic and finally

Now let us see how in these several cases we can account for the copy. In the case of simple suggestive imitation, it is there in consciousness for reproduction, and is reproduced. How does this come about?

§ 5. Suppose at first an organism giving random reactions, some of which are useful; now for development the useful reactions must be repeated, and thus made to outweigh the reactions which are damaging or useless. Evidently if there are any among the useful reactions which result in an immediate duplication of their own stimulus, these must persist, and on them must rest the development of the organism. These are the imitative reactions. Thus it is that a thing in nature once endowed with the reacting property might so select its stimulations as to make its relations to its environment means to its own progress: imitative reactions, as now defined, being the only means to such selection.

This, it is plain, assumes consciousness in such an organism: for it is difficult to see how a reaction which reproduces its own stimulus in an exact material way could ever begin, or ever stop when begun; that is, how it would differ from a self-perpetuating whirlwind, or from an elastic ball for ever rebounding between two equal resistances. This last we do find even in consciousness in certain cases,[1] but in as much as they are self-repeating, they do not present any law of development, and so approximate to a state of things in which consciousness might be conceived to be absent. At any rate, I find it more philosophical to make consciousness as original as anything else, and to hold with Lewes that reactive tissue is always conscious.[2]

into suggestive reactions. On the organic side, these two laws . . . represent 'upward' [phylogenetic] and 'downward' [ontogenetic] growth respectively" (Baldwin, *Handbook*, ii. 310-311; *cf.* Ziehen, *Introd. to Phys. Psych.*, p. 17). Imitation is a "mode whereby intelligence may change or deflect an instinct . . . it is true that the initial stage of such deflexion occurs in the 'original ideas'" [what are called "copies" in this paper] (Romanes, *Mental Evolution in Animals*, p. 219).

[1] So with the endless repetitions by young children and parrots of the same sounds. Continued muscular tension kept up by circular discharge until nervous exhaustion ensues, is characteristic of the cataleptic condition.

[2] To be sure it may be said that an organism cannot in any case be compared with such a self-repeating mechanical device (say a swinging pendulum), from the mere fact that it gets *exhausted* and *grows*. This is true, and for this very reason I am unable to accept the purely chemical doctrine of life which Verworn states in the theory spoken of subsequently (§ 8, below). But why may not consciousness be the "something" which secures (or at least evidences) growth or exhaustion?

§ 6. Development begun on this basis could proceed only if two requisites were fulfilled: first, the reaction which sustains the copy must persist, and second, there must be a constant creation of new copies. The first means consolidation of tissues, a law of increasing fixedness in nerve processes, tending to give rise to great functional habits, which at any stage of progress represent the acquired copies of the organism and its degree of adaptation to the environment. But, how is this persistence possible in the absence of the objective stimulus? Evidently it is not possible, unless there be some way whereby the energies of the reaction in question may be started by something equivalent to the working of the original external stimulus. This is accomplished in the organism by an arrangement whereby a variety of copies conspire, so to speak, to "ring up" one another. When an external stimulus starts one of them, that starts up many others in a series, and all the reactions which wait upon these copies tend to realise themselves. Thus the great practised habits of the organism get confirmed by stimulation again and again, while the increasing variety of the conspiring copies—constantly recruited from the new experiences of the world—make up a large and ever larger mass of elements, or centres, which vibrate in delicate counterpoise together.

§ 7. Of course it is evident that the arrangement thus sketched is the physical basis of memory. A memory is a copy for imitation taken over from the world into consciousness. Memory is a device to nullify distance in space and time. It remedies lack of immediate connexion with the accidental occurrences of the world. Every act I set myself to do is either to imitate something which I find now before me, or to reproduce, by making objective to myself, something whose elements I remember—something whose copy I get set within me by a "ring up" from elements which are in immediate connexion with what is now before me.[1]

§ 8. The theory so far advanced, with extreme brevity, is in accord with that first announced (obscurely I think) by Tarde.[2]

[1] The psychology of lying becomes clear when we remember that a lie is the emphasis of a "copy" just as truth-telling is. In children about two years old, truth or falsehood hangs largely upon the question what copy elements come up first. Before he has learned to apply the tests to his images by which true memories are distinguished, the child simply reacts upon the images that are there, no matter where they come from.

[2] *Les Lois de l'Imitation*, chap. iii.; published earlier in an article "Qu'est ce qu'une Société," *Revue Philosophique*, xviii., 1884, p. 489.

Tarde's theory is improved in quotation, and endorsed by Sighele.[1] It may be analysed into two moments, *i.e.*, (*a*), the securing of repetitions by imitation, and (*b*), the theory of memory considered as a means of perpetuating and increasing the effects of repetition, in mental development, by the formation of habits. This latter moment I find only vaguely and inadequately stated by Tarde. It is readily seen that this assumes the fact of imitation, makes of it an original endowment or instinct, and is, in so far, open to the objections which may be urged (*cf.* Bain, *Senses and Intellect*, 3rd ed., pp. 413 ff., taken up below, § 28) against such a view. The theory which I am now proposing supplies this lack: it gives a derivation of imitation based upon an analysis of the imitative reaction itself. This analysis—the outcome of which I have expressed by calling imitation a "circular reaction," *i.e.*, one which repeats its own stimulus—gives us a means of defining imitation and fixing the limits of the concept (below, § 26).[2] The third and fundamental moment, therefore, which the development stated above endeavours to supply, is the rise of imitation from simple contractility under two concurrent agencies: (1) the occurrence, among the "spontaneous variations" of discharge, of movements which secure at once the repetition of the first stimulus, and (2), the continuance of such of these self-repeating reactions as are useful (pleasurable). Those which are damaging (painful) or useless, by that very fact, lower the vitality of the organism and so hinder their own recurrence. This derivation of imitation secured, we are able to develop independently the two principles urged by Tarde and Sighele, as follows in this paper.

This derivation of imitative reaction is in line, I think, with the most important and thorough contributions lately made to the theory of organic movement—as far as one who is not a professional biologist is entitled to an opinion. Two recent investigators have summed up evidence which supplies in great part the basis long desiderated for a theory of muscular action and development. Eimer[3] has stated the facts which make it probable that all the "morphological properties of muscle are the result of functional activity". On this view contraction waves leave markings which account for both muscle-fibres and striation. The

[1] *La foule criminelle*, pp. 42 ff.

[2] *Cf.* Tönnies, *Philosophische Monatshefte*, 1893, p. 298, on the necessity for definition in this field.

[3] *Zeitschrift für wissen. Zoologie*, liii. suppl. Bd. p. 67.

series of stages in the development of voluntary muscle which biological science is now cognisant of, is very striking. That there are no anatomical divisions corresponding to the striation of muscle is shown by recent observations. It remains, then, only to find a physiological conception of contraction which, while applicable primarily to unicellular creatures, provides for the development of the organism and the differentiation of its parts. Natural history requires, in the words of Engelmann, that "every attempt to explain the mechanism of protoplasmic movement must extend to all the other phenomena of contractility".[1] This requirement the theory of contractility of Max Verworn seems to me to go far toward supplying, accordant as it is with the detailed results of Kühne, Schultz, Englemann and others. The outcome of Verworn's work is a chemical theory of contractility which rests upon two known cases of chemical action.[2] Kühne has proved that the oxygen of the air supplies a want to the outer layer of particles of a protoplasmic mass. The elements set free by this union find themselves impelled toward the centre by their affinity for the nuclear elements: this new synthesis releases elements which again move outward toward the oxygen at the surface.[3] Thus there are two contrary movements: away from the nucleus, or expansion, and toward the nucleus, or contraction. Considering the oxygen-action as stimulus, we have thus a reaction which repeats its own stimulus and thus perpetuates itself. This is just the type of imitative reaction as my theory, outlined above, requires it. Verworn pushes the claim of this type of vital action right up through all the forms of muscular action—just as Eimer finds only the one type of function necessary to account for all the morphological variations. I am certainly, therefore, within the bounds of biological evidence in claiming that the imitative type of reaction is first in psychological order and significance: and especially so if it be found, as this paper endeavours to hold, that the progress of consciousness can be accounted for in stages corresponding in its great features with the stages of differentiation required by the physiological and anatomical theories.

[1] Quoted by Soury, *Revue Philosophique*, July, 1893, p. 45.

[2] *Die Bewegung der lebendigen Substanz* (Jena, 1892). Verworn's work is summarised by Soury (see last note). See Burdon Sanderson's remarks on 'Chemiotaxis' in *Nature*, Sept. 14, 1893, p. 471.

[3] The exhaustion of the nucleus by stimulation is shown by the work of Hodge, *Changes due to Functional Activity of Nerve Cells*. Boston, 1893.

The concomitance of higher and lower instances of the one "circular reaction" is seen in the voluntary contraction of a muscle because an act is pictured and desired (imitated) on the one hand, and on the other, in the continued rhythmical performance of the same act automatically.[1]

§ 9. For example, resuming our analysis of consciousness: you speak a word; I at once write it. To-morrow, by reason of a brain lesion, I am unable to write the word when I hear you speak it, but I can still copy the word when you set it before me. The lesion has simply deprived me of the use of my internal visual copy by cutting the writing-reaction apparatus off from its connexion with the auditory seat from which this visual copy was accustomed to be "rung up". But the simpler imitation of the external visual copy remains possible. A step further: I see a man and at once write his name. Here the visual image of the man rings up the auditory image of the name-word, this rings up the visual copy-image of the written word, and this I imitate by writing. If any one had asked me why I wrote the man's name, I would have said: "Because I remembered it". But each one of these images is itself a "copy," when needed for its own appropriate reaction. A young child, on seeing the man, would say "Man," *i.e.*, would imitate the auditory copy which the sight of the man rung up. And a certain child of mine would probably hasten to ask for a pencil in order to draw the man, *i.e.*, to imitate the schematic outline man fixed in her memory by earlier efforts to imitate the external thing.

§ 10. The question as to how the different "copies" get to ring one another up, in such a system, is the question of association. They can at first act together only as far as the original external copies are together. In other words, association by contiguity is simply the transfer of external togetherness into internal togetherness. But suppose a present external copy rings up another copy which is only internal: why is this? Evidently because there are some other elements of copy either external or internal which have been together with both: this is association by resemblance or contrast. For example: your spoken word brings up my written word copy. Why? Because sound and written copy existed together when I learned to write. Again, man seen brings up name written. Why? Because "man seen" and "name heard" were present together

[1] See Chauveau on "The Sensori-motor Nerve Circuit of Muscles" in *Brain*, 1891, pp. 145 ff., and Exner on "Senso-mobilität" in Pflüger's *Archiv*, xlviii. 592 ff.

when I learned to speak, and afterwards "name heard" and "name written" were present together when I learned to write. So "name heard" is the common element of copy.

§ 11. Reflexion convinces us that we have now reached a principle of wide-reaching application in mental development. We see how it is possible for reactions which were originally simple imitative suggestions to lose all appearance of their true origin. Copy-links at first distinctly present as external things, and afterwards present with almost equal distinctness as internal memories, may become quite lost in the rapid progress of consciousness. New connexions get established in the network of association, and motor discharges get stimulated thus which were possible at first only by imitation and owed their formation to it. A musician plays by reading printed notes, and forgets that in learning the meaning of the notes he imitated the movements and sounds which his instructor made: but the intermediate copies have so fallen away that his performance seems to offer no surface imitation at all. His sound copy system, of course, persists to the end to guide his muscular reactions. But a musician of the visual type goes farther. He may play from memory of the printed notes; that is, he may play from a transplanted visual copy of notes which themselves are but shorthand or substitute expressions of earlier sound and muscular copies, and finally the name only of a familiar selection may be sufficient to start a performance guided only by a subconscious muscular copy series. If this principle should be proved to be of universal application we would then be able to say that every intelligent action is stimulated by copies whose presence the action in question tends to reproduce.[1]

§ 12. Returning to the earlier question of the origin of instinct and impulse, I venture to suggest—subject to criticism and in the face of apparent paradox—that both of them are explainable by this principle of modified and compounded imitations. What is a bird's nest-building instinct but a roundabout road to a simple adaptation which was at first carefully copied, but which has been buried and utterly blotted out of consciousness by genera-

[1] It is easy to see that the whole psychological theory of muscular control, whether central or peripheral in its seat, requires the production by the reaction of a sensational series which matches or repeats a copy series: and inhibition in general represents the limitations which ready organic acquisitions impose upon new reactions—they must conform if possible to old organic "copy".

tions of inheritance, until the direct fragmentary reactions of its present world have come to make up the larger whole which is our "idea" and the bird's creation? What is impulse but the trunk, the torso, of a reaction which has lost its copy and so failed to maintain itself in full operation—fully useful once but now restricted and superseded by more complex activities? We have impulses and the animals have instincts because we have left the animals behind and by our rational volitions realise compounds of activity which instincts at their best only ape. In the insane asylums may be seen men in whom the semblance of "idea," preserved in the animals by the equilibrium of instincts, as well as the prevision characteristic of human choice, are both absent: and in these persons impulse, free from both checks, plays itself out in fragmentary and destructive action. Like little children, before the training of volition, such patients learn only by imitation.

§ 13. Accommodation, then, is the principle by the action of which, in the constant exercise of imitation, new adaptations are acquired, and the system of copies to which it is the end of our actions to conform, is indefinitely recruited.

§ 14. Continued accommodation is possible only because the other principle, *habit*, all the time conserves the past and gives *points d'appui* in solidified structure for new accommodations. Inasmuch, further, as the copy by transference from the world to the mind, in memory, becomes capable of internal revival, accommodation takes on a new character—a conscious subjective character—in *volition*. Volition arises as a phenomenon of "persistent imitative suggestion," as I have argued in a more severe way elsewhere.[1] That is, volition arises when a copy remembered vibrates with other copies remembered or presented, and when all the connexions, in thought and action, of all of them are together set in motion incipiently. The residue of motive is connected with what we call attention,[2] and the final co-ordination of all the motor elements involved is volition, or choice. The physical basis of memory, association, thought, is also that of will—the cerebrum—and pathological cases show clearly that aboulia is funda-

[1] *Proceedings of Congress of Experimental Psychology*, London, 1892, pp. 49 ff. This topic is to be more fully developed in a special chapter of my forthcoming book.

[2] For an analysis of the relation of Reflex attention to sensation and movement, see my article, "Internal Speech and Song," in *Philosophical Review*, July, 1893, pp. 385 ff.

mentally a defect of synthesis in perception and memory,[1] arising from one or more breaks in the copy system whose rise I have sketched in what precedes.

§ 15. There are several aspects of presentation and representation which seem more reasonable when brought into connexion with our present topic. The principle of assimilation, made much of in recent discussions, clearly illustrates not only the possible dominance in consciousness of a copy-image so strong and habitual as to assimilate new experiences to its form and colour; but also that this assimilation is the very mode and method of the mind's digestion of what it feeds upon. Consciousness constantly tends to neglect the unfit, the *mal apropos*, the incongruous, and to show itself receptive to that which in any way conforms to its present stock. A child after learning to draw a full face—circle with spots for the two eyes, nose, and mouth, and projections on the sides for ears—will persist when copying a face in profile in drawing its circle, with two eyes, and two ears; and fail to see its error, although only one ear is visible and no eyes.[2] The external pattern is assimilated to the memory copy. The child has a motor reaction for imitating the latter; why should not that answer for the other as well? As everybody admits, in one way or another, such assimilation is at the bottom of recognition, and of illusions, which are but mistaken recognitions.

§ 16. Passing on to the sphere of conception and thought, we find a remarkable opening for the law of imitation. The principle of Identity which represents the mental demand for consistency of experience, and the mental tendency, already remarked, to the assimilation of new material to old schemes, is seen genetically in the simple fact that repetitions are pleasurable to the infant because of the law of habit in its reactions. Just in as far as a new experience repeats an old one, to this degree it accomplishes what motor imitation would have accomplished, and makes future repetitions easier. To say that identity is necessary to thought, therefore, is only to say that it expresses in a generalisation the method of mental development by imitative reaction. Identity is the formal or logical expression of the principle of Habit.

§ 17. The principle of Sufficient Reason is subject to a corresponding genetic expression, on the side of Accommo-

[1] See Janet, "Un cas d'Aboulie, &c.," in *Revue Philosophique*, March and April, 1891.

[2] *Cf.* Passy's interesting observations in *Revue Philosophique*, 1891, ii. 614.

dation. Sufficient reason, in the child's mind, is an attitude, a belief: anything in its experience which tends to modify the course of its habitual reactions in a way which it must accept, endorse, believe—this has its sufficient reason, and he accommodates to it by imitation. I have argued elsewhere that a conflict between the established, the habitual, the taken for granted, the identified, on one hand, and the unidentified and unassimilated, on the other hand, is necessary to belief. Belief arises in the child in the readjustment of himself actively to new elements of reality. In as far as there is truth in this view, in so far does Sufficient Reason become a formal or logical statement of the fact of accommodation. Put more broadly: whenever we believe a new thing or accept its existence, we accommodate our attitude to its presence, we make place for it in our store of acquisitions for future use; this means that we are prepared to reproduce it voluntarily and involuntarily, to make it a part of that copy system which hangs together in our memory as representing a consistent course of conduct and the best adjustment we have been able to effect to our physical and moral environment.

Imitation is then the method by which our living *milieu* in all its aspects gets carried over and reproduced within us. Our consciousness of the relationships of the elements of this reproduced world is our sense of sufficient reason. Our accompanying sense of acceptance and endorsement of these copies by our own action is belief, and the familiarity which repetition engenders betokens the growth of habit and the so-called law of identity.

§ 18. Conception proceeds by identities and sufficient reasons: and we get in this connexion a new genetic view of the active basis of the general notion. The child begins with what seems to be a general. His earliest experiences, carried over into memory, become general copies which stand as assimilative nets for every new event or object. All men are "papa," all colours are "wed," all food "mik". What this really means is that the child's motor attitudes are fewer than his receptive experiences. Each experience of man calls out the same attitude, the same incipient movement, the same coefficient of attention on his part, *i.e.*, as that with which he hails "papa". In other words, each man is a repetition of the papa-copy and carries the child out in action, just as his own imitation of the papa-copy by movement would have carried him out. But of course this does not continue. By accommodations, by experiences which will not assimilate, this tendency to habit is in part

counteracted, his classes grow more numerous as his reactions do, his general notions more "reasonable," and he is on the proper way to a "rectification of the concept".

§ 19. Again, in the affective life we find evidence of the working of the imitative principle. The production of emotion depends upon the reinstatement by association or action of an ideal copy. Sympathy may be called, however, the imitative emotion *par excellence*. My child H. cried out when I pinched a bottle-cork in her fifth month, and wept bitterly, in her twenty-second week, at the sight of a picture of a man with bowed head and feet in stocks. In such cases the presentation is assimilated to memory-copies of personal suffering, and so calls out the motor attitudes habitual to experiences of pleasure- or pain-giving objects. And the motor discharges—the emotional expressions—react to define and deepen the emotion itself. In many cases, however, I think, the associative order is the reverse. The presentation of the expression of emotion in another stimulates motor expression in us, and this in turn reacts to arouse the hedonic state which usually stimulates such a reaction. The two cases of sympathy in my child, given above, illustrate the truth of both these accounts.

§ 20. To speak of pleasure and pain for themselves—I see no way to find an absolute beginning for them anywhere in the course of mental development. If the reactive or contractile process began without consciousness, then no doubt pleasure and pain were the first and simplest form of consciousness when the conditions of its rise were present. But if consciousness was present from the first, and if development depended upon the repetition of useful reactions, then that which throughout the whole animal series and in man constitutes the index in consciousness of profit and loss and so serves as its selective criterion—pleasure and pain—must have had the same place and *rôle* then as now. Otherwise why should it be at all? Preferring the alternative which does not involve us in the question of the origin of consciousness—a preference for which more adequate reasons can be given in general philosophy—I think pleasure and pain must be held to be original accompaniments of vital reaction.[1]

[1] It is sufficient to suggest at this point that as far as psycho-physical theories of pleasure and pain have taken account of movement, as an element in mental development, they are in accord with the fundamental conception of this paper. Meynert (*Pop. wiss. Vorträge*, iii.) bases the distinction between pleasure and pain, in their genesis, upon the inner processes which minister respectively to outward movements

§ 21. Our outcome then seems to be this, as far as the natural history conception is a valid one; mental development on its active side might be accounted for on the basis of imitative repetition solely, provided two original moments be assumed in the first manifestations of life, *i.e.*, contractility and pleasure-pain.[1]

§ 22. An interesting point comes to light when we ask the relation of these two factors to each other. If imitation is anything like the fundamental fact which the foregoing account takes it to be—the means of selection among varied external stimulations—it becomes evident in what sense pleasure and pain can be called the "object" of the reaction. Pleasure and pain are seen to be the index of a change brought about by a function. The repetition of this function is desirable, and this is secured by further imitation. The pleasure is enhanced by this repetition which aims at securing the continual presence of the copy; that is to say, the pleasure accruing is something additional to the copy or "object" which the reaction aims at.

The observation of young children directly and plainly confirms the truth of this position. The child invariably reacts at first upon objects. Suggestion, serving as a principle of accommodation, works regardless of the pleasure or pain which it gives rise to. I have illustrated this elsewhere with concrete cases from infant life.[2] Romanes finds it in the animal world.[3] Pathology is full of striking illustrations of it. Further, the transition from this naive suggestibility to the reflective consciousness in which pleasures and pains become considerations or ends, is marked in the life history of the infant. He learns to dally with his bottle, to post-

(*Angriffsbewegungen*) and returning movements (*Abwehrbewegungen*); and Münsterberg's recent suggestive experiments (*Proc. Cong. Exper. Psych.*, London meeting, p. 132; and *Beiträge*, Heft iv. pp. 216 ff.) bear in the direction of a similar distinction. It is clear that, in the main, outward movements, expansions, would be the stimulus-repeating, imitative, pleasurable movements: and returning movements, contractions, would represent lessened vitality and so pain. *Rigor mortis* is contraction; and it is seen in unicellular creatures in the return to the spherical form when death comes.

[1] This leaves untouched the mysteries of reproduction and heredity over which the chemists and the philosophers are at war. Personally I am quite incompetent to discuss either of them. See also what is said about the limitations of the 'natural history conception,' below, § 29.

[2] *Science*, *loc. cit.*

[3] "There is abundant evidence of one individual imitating the habits of another individual whether the action imitated be beneficial or useless" (*Mental Evolution in Animals*, p. 220).

pone his enjoyment, to subordinate a present to a distant pleasure, by a gradual process of reflective self-control. He gradually grows out of his neutrality to be a reflective egoist; but fortunately he learns at the same time, or even earlier, the elements of reflective altruism as well.

In adult life it is undoubtedly true that we usually do things because we like to do them, but it is not always so. Just as the little child sometimes acts from mere suggestion, at the same time moved to tears by the anticipation of pain to result from it; so to the man a copy may be presented so strongly for imitation, it may be so moving by its simple suggestiveness, that he acts upon it even though it have a hedonic colouring of pain. The principle of accommodation requires that it be so, for otherwise there could be no development, except within the very narrow range of accidental discharge. No new adjustment or adaptation could be effected without risk of pain and damage. If the child never reacted in any way, but in pleasurable ways guaranteed by its inheritance or by its experience, how could it grow? So if we sought only what we have already tasted, how could new appetites be acquired?[1]

§ 23. There is another sphere of the operation of imitation into which we must briefly enter—the social and moral sphere. The growth of the notion of self is so important a genetic factor in social and moral life, that it may suffice to consider the influence of imitation in the consciousness of self—an influence not generally recognised.

One of the most remarkable tendencies of the very young child in its responses to its environment is its tendency to recognise differences of personality. It responds to what I have elsewhere called "suggestions of personality".[2] As early as the second month it distinguishes its mother's or nurse's touch in the dark. It learns characteristic methods of holding, taking up, patting, kissing, &c., and adapts itself by a marvellous accuracy of protestation or acquiescence to these personal variations. Its associations of personality come to be of such importance, that for a long time its happiness or misery depends upon the presence of certain kinds of personality-suggestion. Of course this indicates a kind of memory, and a reaction which imitates or seeks to reproduce useful and pleasurable experiences. But yet it is quite a different thing from the child's behaviour towards

[1] In the chapters on "Pleasure and Pain" in my *Handbook* (ii., chaps. v. and xi.) I have pointed out that the "well-being" theory of pleasure and pain must be supplemented to include reference to *future* development.

[2] *Science*, *loc. cit.*

things which are not persons. Things get to be, with some few exceptions which are involved in the direct gratification of appetite, more and more unimportant: things get subordinated to regular treatment or reaction. But persons get constantly more important, as uncertain and dominating agencies of pleasure and pain. The fact of movement by persons and its effects on the infant seem to be the most important factor in this peculiar influence; later the voice gets to stand for a person's presence, and at last the face and its expressions equal the person, in all his attributes.

I think this distinction between persons and things, between agencies and objects, is the child's very first step away from a purely objective consciousness. The sense of uncertainty or lack of confidence grows stronger and stronger in its dealings with persons—an uncertainty contingent upon the moods, emotions, *nuances* of expression and shades of treatment of the persons around it. A person stands for a group of experiences quite unstable in its prophetic as it is in its historical meaning. This we may for brevity of expression, assuming it to be first in order of development, call the "*projective* stage"[1] in the growth of personal consciousness.

Further observation of children shows that the instrument of transition from such a "projective" to a subjective sense of personality is the child's active bodily self, and the method of it is the principle of imitation. As a matter of fact, accommodation by actual muscular imitation does not arise in most children until about the seventh month—so utterly organic is the child before this, and so great is the impetus of its inherited instincts and tendencies. But when the organism is ripe, by reason of cerebral development, for the enlargement of its active range by new accommodations, then he begins to imitate. And of course he imitates persons. Persons have become his interesting objects, the source of his weal or woe, his uncertain factors. And further, persons are bodies which move. Among these bodies which move, which have certain projective attributes as described, a very peculiar and interesting one is his own body. It has connected with it certain intimate features which all others lack. Besides the inspection of hand and foot, by touch and sight, he has experiences in his consciousness which are in all cases connected with this body: strains, stresses, resistances, pains, &c.—an inner felt series match-

[1] The use of this word seems to be necessary in order not to encroach upon the recognised meanings of the words *subjective* and *ejective*.

ing the outer presented series. But it is only when a new kind of experience arises which we call effort—a set opposition to strain, stress, resistance, pain: an experience which arises, I think, first as imitative effort—that there comes that great line of cleavage in his experience which indicates, as I have said above, the rise of volition, and which separates off the series now first really *subjective*. Persistent imitation with effort is the first volition, and the first germinating nucleus of self-hood over against object-hood. Situations before accepted simply, are now set forward, aimed at, wrought; and in the fact of aiming, working, the fact of agency, is the sense of subject. The subject sense is an actuating sense. What has formerly been projective now becomes subjective. The associates of other personal bodies, the attributes which made them different from things, are now attached to his own body with the further peculiarity of actuation. This I may call the *subjective* stage in the growth of the self-notion. It rapidly assimilates to itself all the other elements by which the child's own body differs in his experience from other active bodies: the passive inner series of pains, pleasures, strains, &c. The self suffers as well as acts. All get set over against lifeless things, and against living bodies which act but whose actions do not contribute to his own sense of actuation or of suffering.

Again, it is easy to see what now happens. The child's subject-sense goes out to illuminate these other persons. The projective is now lighted up, claimed, clothed on with the raiment of self-hood, by analogy. The projective becomes *ejective*, *i.e.*, other people's bodies, says the child to himself, have experiences *in them* such as mine has. This is the third stage, the *ejective*, or "social" self.[1]

The *ego* and the *alter* are thus born together. Both are crude and unreflective, largely organic, an aggregate of sensations prime among which are efforts, pushes, strains, physical pleasures and pains. And the two get purified and clarified together by this twofold reaction between project and subject, and between subject and eject. My sense of myself grows by imitation of you, and my sense of yourself grows in terms of my sense of myself Both *ego* and *alter* are thus essentially social creations. For a long time the child's sense of self includes too much: the circumference of

[1] I think an adequate apprehension of the distinctions conveyed by the three words "projective," "subjective," and "ejective" would banish the popular "psychologists' fallacy" beyond recall.

the notion is too wide. It includes the infant's mother, and little brother, and nurse, in a literal sense. To be separated from his mother is to lose a part of himself; as much so as to be separated from a hand or foot. And he is dependent for his growth directly upon these suggestions which came in for imitation from his personal *milieu*.

It will be seen by readers of R. Avenarius[1] that the two stages of this development correspond to the two stages in his process of *Introjection*, whereby the "hypothetical" (personal-organic) element of the *naturlichen Weltbegriff* is secured. Avenarius finds, from analytical and anthropological points of view, a process of attribution, reading-in (*Einlegung*), by which a consciousness comes to interpret certain peculiarities attaching to those items in its experience which represent organisms and afterwards persons. The second stage is that whereby these peculiarities get carried back and attached to its own organism (*Selbst-einlegung*); and recognised as "subjective" (sensations, perceptions, thoughts), in both organisms, over against the regular "objective" elements contained in the rest of the world-experience.

This general doctrine of Avenarius finds profound justification, I think, from the genetic sphere, as the two phenomena "personality-suggestion" and "imitation" indicate. The first stage is what I have called the "projective" stage of the self-notion in what precedes. It is the stage in which the infant gets "personality-suggestions". It is simply the infant's way of getting "more copy" of a peculiar kind from its objective (personal) surroundings. The second stage is secured by imitation. The child reproduces the copy thus obtained, consisting of the physical signs and, through them, of the mental accompaniments. By this reproduction it "interprets" its projects as subjective in itself, and then refers them back to the "other person" again. Avenarius, as far as I have been able to discover, has no means of passing from the first to the second stage, from *project* to *subject*. He speaks[2] of a certain confusion (*Verwechselung*) of the projective experience (*T-Erfahrung*) with the remaining personal elements in consciousness (*M-Erfahrung*): what the true leading-thread into this "confusion" and out of it is, he does not note. This is just what I claim the function of imitation does; it supplies the bridge with two reaches. It enables me to pass

[1] *Kritik der Reinen Erfahrung*, and also *der Menschliche Weltbegriff*. The present writer judges the doctrines principally from the second-named work. The first is so obscurely written that one is tempted to confess a certain willingness to leave it unexplored.

[2] *Loc. cit.*, § 51, p. 30, and § 95, p. 49.

from my experience of what you are, to an interpretation of what I am; and then from this fuller sense of what I am, back to a fuller knowledge of what you are.[1]

§ 24. The two principles, habit and accommodation, now get application on a higher plane: a plane which is the theatre of the rise of moral sentiment. Again disclaiming adequacy of treatment, I think some light falls on the growth of ethical feeling from the psychology of imitation. Moral sentiment arises evidently around acts and attitudes of will. It is accordingly to be expected that the account of the genesis of volition will throw some light upon the conditions of the rise of conscience. If it be true that present character is the deposit of all former reactions of whatever kind, and that what we call will is a general term for our concrete acts of volition; then according as these acts of volition are done in reference to suggestion from persons, or represent partial expressions of personal character, there arises a division within the notion of self. Your suggestion may conflict with my desire: my desire may conflict with present sympathy. Self meets self, so to speak. It is no longer a matter of simple habit *versus* simple suggestion as is the case in infancy, before the self becomes a voluntary agent. It is now that form of habit which is personal agency coming into conflict with that form of suggestion which is also personal to me as representing my social self. Your example is powerful to me intrinsically; not because it is abstractly good or evil, but because it represents a part of myself, inasmuch as I have become what I am in part through my sympathy with you and imitation of you.

[1] In the use of the two facts, "personality-suggestion" and "imitation," my development is quite unindebted to Avenarius, who writes from the point of view of race history and criticism. I do not adopt the word 'introjection' since it covers too much; my word 'project' signifies the child's sense of others' personality before it has a sense of its own. The rest proceeds by imitation. This distinction of method raises a further question which should be carefully discussed in all problems for which a genetic solution is sought, *i.e.*, how far the genetic process itself in the individual's growth has become a matter of race habit or instinct. That is, granted a process of origin correctly depicted, to what extent must we say that each new individual of the race passes through it in all its details? Does mental ontogenesis repeat mental phylogenesis? The origin of impulse and instinct illustrate the effects of habit in abbreviating these processes and starting the individual from points of higher vantage. I am not prepared to say that an isolated child, for example, might not get a high self-notion (as he might learn to speak somehow) if deprived of all social suggestions; but that fact would be subject to explanation as part of the "learning" which evidences the reality of the genetic process. (*Cf.* the note on Prof. Bain's arguments to prove that imitation is not instinctive, below, § 28.

When I come to a new moral situation, therefore, my state is this: I am in a condition of relative equilibrium, or balance of two factors—my personal or habitual self, and my larger social suggestive self. The new experience tends to destroy this equilibrium by reinforcing my "copy" on one side or the other, and so to lead me out for further habit or for new social adaptations.

And now on this basis comes a new mental movement which seems to me to involve a further development of the imitative *motif*—a development which substitutes warmth and life for the horrible coldness and death of that view which identifies voluntary morality with submission to a "word of command". The child, it is true, very soon comes across that most tremendous thing in its moral environment which we call authority: and acquires that most magnificent thing in our moral equipment which we call obedience. He acquires obedience in one of two ways, or both: by suggestion or by punishment. The way of suggestion is the higher way: because it proceeds by gradual lessons in accommodation, until the habit of regularity in conduct is acquired in opposition to the capriciousness of his own reactions. It is also the better way because it sets before the child in an object lesson an example of that stability and lawfulness which it is the end of all obedience to foster. Yet punishment is good and often necessary. Punishment is nature's way: she inflicts the punishment first, and afterwards nurses the insight by which the punishment comes to be understood. A child's capricious movement brings the pain which represents all the organic growth of the race: and so when we punish a child's capricious conduct, we are letting fall upon him the pain which represents all the social and ethical growth of the race. But by whatever method—suggestion or punishment—the object is the same: to preserve the child until he learns from his own habit the insight which is necessary to his own salvation through intelligent submission.

But whether obedience comes by suggestion or by punishment it has this genetic value: it leads to another refinement in the sense of self, at first 'projective' then subjective. The child finds himself stimulated constantly to deny his impulses, his desires, even his irregular sympathies, by conforming to the will of another. This other represents a regular, systematic, unflinching, but reasonable personality —still a person, but a very different person from the child's own. Here is a copy which is a personal authority or law. It is 'projective' because he cannot understand it, cannot anticipate it. And again it is only by imitation that he is to

reproduce it, and so arrive at a knowledge of what he is to understand it to be. So it is a copy. It is its aim and should be mine—if I am awake to it—to have me obey it, act like it, think like it, be like it in all respects. It is not I, but I am to become it. Here is my ideal self, my final pattern, my "ought" set before me. Only in as far as I get into the habit of being and doing like it, get my character moulded into conformity with it, only so far am I good. And like all other imitative functions it teaches its lesson only by stimulating to action. I must succeed in doing, if I would understand. But as I thus progress in doing, I for ever find new patterns set for me; and so my ethical insight must always find its profoundest expression in that yearning which anticipates but does not overtake the ideal.[1]

My sense of moral ideal, therefore, is my sense of a possible perfect, regular will in me in which the personal and the social self—my habits and my social calls—are completely in harmony: the sense of obligation in me is the sense of lack of such harmony—of the actual discrepancies in my various thoughts of self, as my actions and tendencies give rise to them. And the thought of this ideal self, made ejective, as out of and beyond me—this is embodied in the moral sanctions of society, and finally in God.[2]

The value of the ejective sense of moral self is seen in the great sensitiveness we have to the supposed opinions of others about our conduct. It is an ingredient of extraordinary influence. From the account given of the rise of the sense of obligation, we should expect the two very subtle aspects of this sensitiveness which are actually present. First, in general, our dread and fear before another's fancied opinion is in direct proportion to our own sense of self-condemnation. Consciousness is clear on this point. It must be so if it is true that our sense of self-condemnation is of social origin, *i.e.*, arises from our imitative response to the well-sanctioned opinions and commands of others. But second, the intelligent observation of the opinions of others, and the suffering of the penalties of social law, react back constantly to purify and elevate the standards which one sets himself. There is, therefore, a constant progress, from the action and reaction of society upon the individual and the individual upon society.

[1] On the nature of "ideals" and the rise of conceptual emotion generally, see my "Feeling and Will" (vol. ii. of *Handbook of Psychology*), chap. ix.

[2] On the distinctively social function of imitation, Tarde and Sighele both dwell in the works named, the latter endeavouring to lay the foundations of a science of "collective psychology".

§ 25. In a recent article, Prof. Josiah Royce[1] distinguishes between the two earlier phases of self which I have pointed out, but does not develop the third. Yet he indicates clearly and with emphasis the twofold element of conflict under which the moral sense develops. The ordinary accounts on the natural history side, from Darwin[2] to the present, simply describe a conflict in consciousness between sympathy and selfishness. This fails to do justice to the "law" element in the genesis of morality. I would go farther than Royce does in emphasising this element: believing as I do that there is no sense of oughtness until the child gets the basis laid of a *habit* which not only calls upon him to deny his private selfishness in favour of sympathy, but also his private sympathies in favour of reasonable regularity learned through submission. The opposition, *e.g.*, between my regular personal ideal and all else—whether it be the regularity of my selfish habit or the irregularity of my generous responses—this is the essential condition of the rise of obligation. And it is in as far as this ought-feeling goes out beyond the copy-elements drawn from actual instances of action, and anticipates better or more ideal action, that the antithesis between the 'ought' and the 'is' gets psychological justification.

The question whether obedience is a case of imitation[3] is largely a matter of definition. As far as the copy set in the 'word of command' is reproduced, the reaction is imitative. A child cannot obey a command to do what he does not know how to do. The circumstances of his doing it, however, the forcible presentation of the copy by another person, this seems only to add additional elements to the copy itself. The child has in view, when he obeys, not only the thing he is to do, but the circumstances—the consequences, the punishment, the reward—and these also he seeks to reproduce or to avoid. On the other hand, it may well be asked whether all of our voluntary imitations, and actions generally, are not cases of obedience: for it is only when an idea gets certain force, and sanctions, and social setting, that it is influential in bringing us out for its reproduction. Of course this is only further play on definitions; but it serves to indicate the real elements in the situation. When Tönnies says that obedience comes first and imitation afterwards, he refers to voluntary imitation of a par

[1] *International Journ. of Ethics*, July, 1893, p. 430.

[2] *Descent of Man*, part i. chap. iii.

[3] See discussion by Tarde, *loc. cit.*, and Paulhan, *Revue Philosophique*, Aug., 1890, p. 179: also Tönnies, *Philosophische Monatshefte*, 1893, p. 308.

ticular type. An infant does not obey a command until he has learned how to perform it; and that suffices, with its sanctions, to give him 'copy'.

§ 26. It is possible, on the basis of the preceding development, to lay out a scheme of notions and terms to govern the discussion of the whole matter of imitation. This has been the 'loose joint' in earlier discussions: the utter lack of any well-defined limits set to the phenomena in question. Tarde practically claims all cases of organic or social resemblance as instances of imitation, overlooking the truth, as one of his critics takes pains to point out, that two things which resemble each other may be common effects of the same cause. Others are disposed to consider the voluntary imitation of an action as the only legitimate case of imitation. We have reason to think, however, that volition requires a finely complex system of copy-elements, whose presence can be accounted for only on the basis of earlier organic imitations. Further, it is the lower, less volitional types of mind that imitation specially characterises. If we then say that imitation always involves a presentation or image of the situation or object imitated—a position very near the popular use of the term—then we have great difficulty in accounting for those reactions which reproduce subconscious, vaguely present stimulations: for example, the acquisition of facial expression, the contagion of emotion, the growth of style in dress and institutions—what may be called the influence of the 'psychic atmosphere'.

I think we have found reason from the analysis above, to hold that our provisional definition of imitation is just: an imitative reaction is one which normally repeats its own stimulus. This is what we find the nervous and muscular mechanism suited to, and this is what we find the organism doing in a progressive way in all the types of function which we have passed in review. If this is too broad a definition, then what I have traced must be given some other name, and imitation applied to any more restricted function that can be clearly and finally marked out. But let us give no rein to the fanciful and strained analogies which have exercised the fancy of some of the French writers on imitation.

Adhering then to the definition which makes of imitation an organic type, we may point out its various "kinds," according to the degree in which a reaction of the general type has by complication, abbreviation, substitution, inhibition, departed in the development of consciousness from its typical simplicity. We find in fact three great instances of function, all of which conform to the imitative type.

First: simple contractility which reproduces its stimulus. This may be called *biological* imitation. Under this head fall all cases lower down than the conscious picturing of copies: lower down in the sense of not involving, and never having involved, for their execution, a conscious sensory or intellectual stimulus, with the possibility of its revival as memory. On the nervous side, such imitations may be called *subcortical;* and in view of another class mentioned below, they may be further qualified as *primarily subcortical.*

These "biological" imitations are evidently first in order of development, and represent the gains or accommodations of the organism made independently of the conscious picturing of copies. They represent accidental variations which are useful for repetition. They serve for the accumulation of material for conscious and voluntary actions. In the young of the animals, its scope is very limited, because of the complete instinctive equipment which young animals bring into the world; but in human infants it plays an important part as the means of the gradual reduction to order and utility of the random movements of the new-born. I have noted its presence under the phrase "pre-imitative" or "physiological" suggestion[1] in another place. It is under this head that the so-called "selective" function of the nervous system finds its first illustration.[2]

Second: we pass to *psychological* or *cortical* imitations. The criterion of imitation—its copy for reproduction—is here preserved through the medium of conscious sensations and images. The copy becomes consciously available in two ways: first, as sensation, which the imitative reaction seeks to continue or reproduce (as the imitation of words heard,

[1] *Science*, xvii., 1891, p. 113. Of course the phrase pre-imitative did not contemplate the broader use of the term imitation which I am now employing, but limited it to conscious imitation.

[2] This distinction between young children and the young of animals gives us the reason that we do not find clear imitations as common among the animals as we would expect—the monkey and the parrot excepted. In the words of Preyer (*Physiologie des Embryos*, p. 545), "the more kinds of co-ordinated movement an animal brings into the world, the fewer is he able to learn afterwards". The child is *par excellence* the animal that learns; and if imitation is the way to learn, he has "chosen the better part" in being more imitative than the rest. Animal imitativeness is generally understated, however—*cf.* the remarkable performances of dogs, cats, birds, &c., in the way of imitation (*cf.* Romanes, *Evol. of Mind in Animals*, chap. xiv.). The most social animals, including man, are the most imitative, as we would expect; since both sociability and imitation are connected with what I have called "personality-suggestion".

movements seen, &c.); and second, as memory. In this latter case there arises desire, in which there is consciousness of the imitative tendency as respects an agreeable memory-copy; and with the persistence of such a copy, and its partial repression by other elements of memory, comes volition. We find, accordingly, two kinds of psychological or cortical imitation, which I have called in the article already quoted[1] respectively "simple" and "persistent" imitation. Simple imitation is the sensory-motor or idea-motor suggestion which reproduces its own stimulus; and persistent imitation is the "try-try-again" experience of early volition.

Third: a great class of facts which we may well designate by the term *plastic* or *secondarily-subcortical* imitation, *i.e.*, all the cases of stimulus-repeating reaction which once represented conscious adaptation, but have become what is ordinarily called "secondary-automatic" and subconscious. These cases we have found readily explainable by the hypothesis of lapsed links in the memory copy system, or, put more shortly, by the principle of habit. So we find under this heading such fundamental facts as instinct and impulse, the social phenomena of contagion, fashion, mob-law, which Tarde and Sighele so well emphasise, the imitation of facial and emotional expression, moral influence, organic sympathy, personal rapport, &c. The term plastic serves to point out the rather helpless condition of the person who imitates, and so interprets in his own action the more intangible influences of his estate in life.[2]

§ 27. Before concluding, I wish to draw attention to some more obscure instances of imitation, and assign them places in the general scheme of development.

The social instances noticed at length by Tarde, and summarised under so-called "laws," are easily reduced to more general principles. Tarde enunciated a law based on the facts that people copy thoughts and opinions before they copy dress and customs: *i.e.*, "imitation proceeds from the internal to the external". As far as this is true it is only partially imitation. Thoughts and opinions are copied because they are most important; and as the copier thinks

[1] *Science*, xvii., 1891. *Cf.* also my paper on "Suggestion and Volition" in the *Proceedings of the London Congress*, 1892.

[2] An extremely subtle and interesting phenomenon under this head is that usually described as the influence of example on personal belief. What we call persuasion is largely the suggestion of the emotion which accompanies strong conviction, with the corresponding influence which the emotion suggested has upon the logical relationships apprehended by the victim.

with another he acts with him, since like thought produces like conduct. But in fact is there such a general truth? American ladies take their styles in dress from the French, but they have little respect for the sentiments of French social circles: they rather imitate in literature and higher things the opinions of the English, whose dress they consider inferior. Further, a child imitates persons, and what he copies most largely are the personal points of evidence, so to speak; the boldest, most external manifestations, not the inner essential mental things. It is only as he grows to make a conscious distinction between thought and action that he gets to giving the former a higher valuation.

Again, Tarde's laws relative to *imitation mode* and *imitation coutume*—the former having in its eye the new, fashionable, popular, the fad; the latter, the old, venerable, customary—are so clearly partial statements of the principles of accommodation and habit, as they get application on a broader social scale, that it is not necessary to dwell further upon them.[1]

The phenomena of hypnotism illustrate most strikingly the reality of imitation at a certain stage of mental life. Delbœuf makes it probable[2] that the characteristic peculiarities of the "stages" of the Paris school are due to this influence: and the wider question may well be opened whether suggestion generally, as understood in hypnotic work, might not be better expressed by some formula which recognises the fundamental sameness of all reactions—normal, pathological, hypnotic, degenerative—which exhibit the form of stimulus-repeating or 'circular' process characteristic of simple imitation. In normal, personal, and social suggestion the copy elements are in part unrecognised, and their reactions are subject to inhibition and blocking-off by the various voluntary and complicated tendencies which have the floor. In sleep, the copy elements are largely spontaneous images thrown up by the play of association or stimulated by outside trivialities, and all so weak that while action follows in the dream persons, it does not follow in the dreamer's own muscles. In hypnotic somnambulism all copy elements are from the outside, thrown in: the inner fountains are blocked: action follows upon idea, whatever it is. Even the idea of no action is acted out by the lethargic, and the idea

[1] Tarde's other principle that "inferiors imitate superiors" is clearly a corollary from the view that the progressive ideal personality arises through social suggestion.

[2] *Revue Philosophique*, xxii. pp. 146 ff.

of fixed action by the cataleptic.[1] And all the vagaries of Luys himself get 'demonstrated' with reality enough, because Luys sets the 'copy'. Further, in certain cases of madness (*folie à deux*, &c.) the afflicted patient acts out responses to a certain personal copy which has become fixed in the progress of the disease, and perhaps has aided in its production.[2] In all these cases, the peculiar character of which is the performance, under conditions commonly called those of aboulia,[3] of reactions which require the muscular co-ordinations usually employed by voluntary action, we have illustrations of 'plastic' imitation. On the pathological side, we find, in aphasic patients who cannot write or speak spontaneously, but who still can copy handwriting, and speak after another, cases which illustrate the same kind of defect, yet in which the defect is not general, but rather confined to a particular group of reactions by reason of a circumscribed lesion.

§ 28. An examination of Prof. Bain's forceful arguments against the view that imitation is an "instinct" will suffice, finally, to set out clearly the *via media* which the conception of this paper suggests.[4] Bain's definition of imitation assigns it a place (the fourth stage) among the acquired reactions which contribute to the development of volition. Imitation is always voluntary, *i.e.*, a conscious repetition of a pictured copy due to association.[5] The first argument advanced to disprove instinctive imitation is this: if imitation were an instinct it would appear earlier in infant life than it does (second half-year).[6] This fact, however, may

[1] It may be well to quote Janet's summary of his determinations of the characteristic features of general catalepsy, all of which indicate a purely imitation condition of consciousness, *Aut. Psych.*, p. 55: "The different phenomena which we have described are these, *i.e.*, the continuation of an attitude or a movement, the repetition of movements which have been seen and of sounds which have been heard, the harmonious association of the members and of their movements."

[2] *Cf.* Falret, *Études cliniques sur les maladies mentales et nerveuses*, p. 547.

[3] This would involve a doctrine which holds that in the hypnotic state, there is inhibition of the cortical associative or synthetic function, but not of the simple cortical sense function: *cf.* Gurney's remarks on Heidenhain's explanation of 'hypnotic mimicry' in MIND, 1884, p. 493.

[4] Bain, *Senses and Intellect*, pp. 413 ff. (3rd ed.).

[5] *Ibid.*, pp. 411 and 413, also 417.

[6] Prof. Sully, *The Human Mind*, ii. 218, also makes this point. Sully makes the following statements in three successive paragraphs; I am quite unable to reconcile them except by modifying them all into conformity with a deeper-going theory of the imitative reaction. (I have ventured to insert in the square brackets after each of these quotations the paragraphs in this paper which bear on it — supposing my

be accounted for on grounds which still leave a balance of inherited organic ("biological" and so instinctive) imitations. The child's early months are taken up with its vegetative functions. Further, accidental imitations struck by him cannot give pleasure until the senses are sharpened to discern them, and until the attention is capable of its operations of comparison, co-ordination, &c.; before this there is no element of pleasure to lend its influence for the continuance of an imitation. As soon as these conditions get fulfilled, we find not only that the child begins to show germinal imitations, such as the monotonous repetition of its own vocal performances (ma-ma-ma-), but also that its nervous connexions give it an instinctive tendency to biological subconscious reactions, distinctly of the imitative type, *i.e.*, the walking alternation of the legs. In the main, therefore, there is instinctive tendency to functions of the imitative type and to some few organic imitations: but those clear conscious imitations which represent new accommodations and acquirements (and it is these which Bain, by definition, has in view) are not instinctive. Infants show remarkable differences in the readiness and facility with which they learn to speak. This does not arise from difference in practice, for practice never overcomes the difference; but it is due to differences in the instinctive tendencies of the infants to a reaction which is, *par excellence*, imitative in its type and method of development.[1]

On this basis it is possible to admit the truth of the

general definition of imitation to be correct.) He says (*ibid.*, 218): "Since it only begins to appear about the fourth month, when simple *voluntary* action directed towards an end is also first recognisable, it is possible that imitation is acquired" [§ 28]: then (219), "As a rapid reaction of a sensori-motor form, it has the look of a mechanical process . . . in many cases there seems to be no conscious purpose. . . . There is much to favour the view that it is purely ideo-motor and so subvolitional" [§§ 11-13 and 26]: then (219 note), "It is pointed out by Gurney that imitation plays a conspicuous part in the hypnotic state" [§ 27]: and again (219-220), "Imitation follows on the persistence of motor-ideas *having a pleasurable interest*. . . . The child does not imitate *all* the actions it sees, but only certain ones which specially impress it. . . . Hence in most, at least, of a child's imitation there is a rudiment of desire. For the rest, the abundant imitative activity of early life illustrates the strength of the *playful* impulse, of the disposition to indulge in motor activity for the sake of its intrinsic pleasurableness" (italics his) [§§ 22 and 28]. Again (109), he makes imitative sympathy instinctive [§§ 19 and 26].

[1] The same may be said of handwriting. *Cf.* Romanes, *Ment. Ev. in An.*, p. 194.

remaining points of Bain's text,[1] at the same time that we recognise a great class of quite involuntary sensori-motor and ideo-motor, as well as purely biological reactions which fall under the imitative type, and which represent instinctive inherited tendencies to movement. In more undeveloped consciousness, further, we find that the purely suggestive influence of a 'copy' for imitation may be so strong that reactions follow despite their painful character: a fact which would be impossible on the theory that all voluntary action is acquired under lead of the pleasure-pain association. The law of habit, which exhibits itself in the inherited motor tendencies I have spoken of, is in these cases too strong for the law of accommodation through pleasure-pain, and works itself out in conduct in opposition to warnings of temporary damage to the organism.

§ 29. The place of imitation has now been made out in a tentative way throughout the development of the active life. It seems to be everywhere. But it is, of course, a matter of natural history that this type of action is of such extraordinary and unlooked-for importance. If we grant a phylogenetic development of mind, imitation, as defined above, may be considered the law and the only law of the progressive interaction of the organism and its environment. The further philosophical questions as to the nature of mind, its worth and its dignity, remain under adjudication. We have learned too much in modern philosophy to argue from the natural history of a thing to its ultimate constitution and meaning—and we commend this consideration to the biologists. As far as there is a more general lesson to be learned from the considerations advanced, it is that we should avoid just this danger, *i.e.*, of interpreting one kind of existence for itself, in an isolated way, without due regard to other kinds of existence with which its manifestations are mixed up. The antithesis, for example, between the self and the world is not a valid antithesis psychologically considered. The self is realised by taking in 'copies' from the world, and the world is enabled to set higher copies only through the constant reactions of the individual self upon it. Morally I am as much a part of society as physically I am a part of the world's fauna; and as my body gets its best explanation from the point of view of its place in a zoological scale, so morally I occupy a

[1] Points which I have also contended for as illustrating the painstaking and tentative stages in the development of voluntary movement through imitation.

place in the social order; and an important factor in the understanding of me is the understanding of it.

The great question is—when put in the phraseology of imitation – What is the final World-copy, and how did it get itself set?[1]

[1] It will be remarked that this whole paper deals with what may be called 'representative copies' as opposed to 'constructive copies,' that is, it avoids the question of invention *versus* imitation, except in so far as to hold (§§ 15, 18) that the material of mental construction is always representative, part of the memory copy system. The further question of how this material can get shaped into new forms of invention, artistic arrangement, constructive thought, through imitation—this question remains over. It is not generally seen, however, that this question, as referring to consciousness, is one with the broader question of natural history *versus* special creation everywhere. Put broadly: how is it possible for anything to arise in Nature which is absolutely new to Nature in its function, get fitted to utilise Nature and to survive in it? I have indicated elsewhere (*Proc. Cong. Exper. Psych.*, London, 1892, p., 52, iii. *Physiological Basis of Will:* also in *Science*, Nov. 18, 1892, p. 287) a possible application of the natural history conception to one of these difficult problems, that of voluntary movement.

III.—REFLEXIONS SUGGESTED BY PSYCHO-PHYSICAL MATERIALISM.

By Prof. S. S. Laurie.

In the laboratory an investigator looks till he sees. The report of a discoverer is verified by his cotemporaries. They confirm the insight of the discoverer; they also now see for themselves what he saw. The formulated record is thereafter one of the accepted constants which the learned world assumes, and from which it takes other steps in advance. But it is almost a truism to say that no man is likely to make a discovery of a fundamental character in any department of knowledge who works on the record of the past as embodied in a series of word-formulas. He must first repeat the investigations that support the formulas and see the reality itself, and not merely comprehend the words symbolic of the reality. In seeing that, he will detect what is really going on in nature and become alive to the true significance of what has been attained, and so be directed to the question next in order. Thus alone will further truths reveal themselves to his patient contemplation. For the mere words of a formula may lose their living meaning, acquire connotations which have no claim to respect, nay, even ultimately obscure the very truth they are intended to make clear.

It is the same in the philosophy of mind—the record of the facts of self-consciousness and of the relation of self-conscious subject to experience or object. Here, too, the task of the investigator is to look till he sees, to face the reality and give a true report. It is not an easy matter. For the element of mind is invisible, intangible, non-measurable: it is also a common or universal element, and has to be dealt with as an abstract: the mind, in short, has itself to be fixed on mind which is ever coming and going, while the sensible phenomenon alone seems to remain in a series of infinitely numerous particular, and in themselves non-significant, experiences. If it be incumbent on the student of physical science to be ever returning to the reality which formulas crystallise, still more incumbent is it on the student of mind to disencumber himself of phrases and forms of expression simply as such, and by independent contemplation strive to see for himself the realities which phrases and words were invented to

symbolise. If he does not do this, he becomes the victim of terms and his cleverest exercitations are only smart dialectic, and, as such, unfruitful either for verification or for further progress.

One great advantage arising from every fresh emphasising of philosophic positions is that they compel even those who think they have finally formulated their own scheme of thought to endeavour to look at fundamental problems once more, and endeavour again to state what they see, or think they see. The recent physico-psychology, for example, though it introduces no new thought, yet, by giving more definite form and more logical statement to one way of looking at the problems of individual mind, and by consequence of human life and destiny, compels us, in loyalty to truth and truth alone, to revise even those conclusions which have gradually and unawares been assuming an axiomatic certainty to our own minds. If in doing so we fall back on certain very elementary facts and truisms, the reader will pardon our doing so. Indeed it is quite necessary to do this as long as the question of the relation of mind and brain remains, either psychologically or metaphysically, open.

If we keep physico-psychology in its most recent form strictly within its own mechanical lines and deny to it access to another and wholly antagonistic scheme of thought, I would venture to put the materialistic case on my own responsibility thus, without specific reference to any individual writer. I am concerned here with a possible, if not an actual, "position" alone.

1. The Physics of Mind has to accept, as we all have, the facts of experience, *e.g.*, consciousness, self-consciousness ego or personality, will, purpose, and it has further to explain them. It does so, in its recent and most thoroughgoing forms, by regarding these facts, and all that we have hitherto called 'mind,' as epi-phenomena of those phenomena which we have been in use to call 'matter'. So we may, within the domain of sense, call the electric flash the epi-phenomenon of that which constitutes electricity whatever it may be.

2. Inasmuch, however, as without the epi-phenomena, it is confessed that the material phenomena could accomplish nothing save that which is itself phenomenal or material and not epi-phenomenal or mental, it must be granted that the epi-phenomenal is of more significance and reality than the phenomena which give it birth. As Aristotle might say, the natural process exists for the 'soul'.

3. Without the epi-phenomenon, what we call philosophy, law, politics, poetry, art would be non-existent save as molecular movements within a prescribed domain which by common consent is called 'matter'. The sole phenomenal *reality* would be the material substratum of all that seems to flow from the facts and energies of mind; but these facts and energies would remain locked up in the prison of matter—a dead potency which could never become actual were it not for the mental epi-phenomena. Consciousness according to this conception would be another name for the *true significance* of material movements as reflected out of themselves; but consciousness as such, much more a 'conscious subject,' would be illusory realities, if indeed we could use the term reality at all.

4. If it be, then, that nothing in the sphere of 'mind' can happen until the phenomenon has passed over into the epi-phenomenon, till there has been a transition from molecular vibration to consciousness, self-consciousness, will, purpose, &c., then assuredly we may say that the mental with all its characteristics is at least reinstated as the sole important fact of experience, while its material antecedent, also a fact of experience, sinks into insignificance. However it may come about, there still is mind—a seemingly infinite effect of a finite cause or series of finite causes.

5. Arrest the molecular vibrations before the point of transition to the 'epi' and there would be no mind, there would be nothing but the said vibrations.

It is evident that it would never do to let the 'epi,' *i.e.*, consciousness or mind, be wholly dependent for its start in life on the molecular movements of matter, and *then* to set up for itself as a substantive entity involving self and will and purpose, including among its varied purposes the inspection of its own birth-tissue. From the physical point of view we may as well have a substantive conscious entity at once to start with *ab initio* as grant this new birth from matter.

Notes, Queries and Suggestions. Not only have we then a wondrous effect of nerve-tissue movements, *viz.*, consciousness or mind, but these nerve-tissue movements being within the sphere of matter are subject to dynamical laws, by the aid of which they work out thoughts and plans which yet may never become truly thoughts and plans, because they may have to stop at home. There are certain rules or laws of sequence and of combination among particles of matter which produce here a Whitechapel murder and there a Hamlet. A vision under the microscope of the molecular net work which issued in the

murder and the molecular network which issued in a Hamlet as it stood prior to its transition into the consciousness of the respective agents, would be worth paying for. The (so-called) purpose and will which are necessary to both epi-phenomena would be found to run like a thread through all the various and subtle tissue combinations which exploded in the various acts and scenes of the respective tragedies. Is it not so? I ask for information; as Toole says, "It is not a riddle". I am very far from dogmatism, being no longer young.

It is presumed that the dynamical rules of composition and separation, &c., are not casual: that, like the rest of nature, the organic cerebrum moves towards a definite result or terminus (I must not, I believe, call it 'end'). Thus an infinite number of material stimuli are received by a specific material cerebral organism, and the rest follows. Consciousness is not, remember, to be allowed a place *within* the series: the colours of the sunset might as well interfere with the setting of the sun.

To bring *into the series* an 'epi' in any form would be fatal to the whole theory, to bring in *such* an 'epi' as the admittedly all-important consciousness would be to constitute *it* a dominant factor in the result, and the whole fabric of cerebration, as the sole reality of which consciousness is a mere superfluous spectator, would fall to pieces.

And yet it would seem to be mighty difficult to get rid of the 'epi' as a factor in the series. The cerebral state and its existing poetic, historical, critical, benevolent or murderous disposure of particles is the resultant of stimuli innumerable proceeding not only from the material shows of things but still more from the written and spoken words and the acts of our fellow-men. When I see one man knock down another while a certain expression, which I have been taught to call ferocious, is visible in his face, there is consciousness not only of these outward facts but of their interpretation in the unseen world of what I have been taught to call feeling and emotion. I feel indignation at the spectacle. This indignation is an intense state of consciousness brought about by a prior consciousness (which I call knowledge) of the true meaning of the physical facts before my eyes. Here, however, I am under a delusion it would seem. The appulse of the physical facts on my cerebral cells is certainly followed by a consciousness of these facts: my interpretation of them, however, as *meaning* anger, violence, injustice, is not consequent on my consciousness of the facts, nor of any as-

sociation of *prior consciousness* in the past with my *present consciousness* of these facts: nor is the resultant consciousness 'indignation' consequent in any way on my consciousness of the meaning of the facts. [Note that I am giving my own version of a *genuine* physical theory of mind.] The history is, on the contrary, simply this: the external facts produce certain molecular changes which reflect themselves into a passive mirror of consciousness,—a superfluous 'epi'. These molecular changes on prior occasions were followed by other molecular changes which have for *their* reflexion in the mirror an awareness of anger, ferocity, &c., and these again effect other molecular changes which are reflected in the same mirror as 'indignation'. Obliterate consciousness, and all the phenomena would have occurred just as they did. The epi is only an epi, and has nothing to do with the sequence of feelings and emotions; it is a superfluity—a mere spectator of the drama of real life.

But these are complex cases. Let us take a simple experience. My nerve-filaments are set a-going by the presence of a horse and the epi called consciousness of a horse (*a*) follows. As it is a fine horse with a mark on its forehead which recalls a historic event, I am conscious next of Bucephalus (*b*), of Alexander the Great (*c*), of the Eastern Conquests (*d*), and the town Bucephala (*e*). The whole of this series is in truth a transference, by a law of mechanical association, of molecular cell-movements to other molecular cell-movements, so that if I were conscious of (*a*) and the cerebral *b*, *c*, *d* were arrested at the point of transmission to consciousness or the 'epi' and died back, (*e*) might yet effect a consciousness for itself, and then the consciousness which immediately followed (*a*) would be Bucephala (*e*) not Bucephalus (*b*). Consciousness must never enter the cerebral series as a factor, for it is beyond question that if the resultant of a cerebral process be the consciousness—'horse'—there before me in space,—and that if *that consciousness* originates by sequence, causal or associative, the idea of Bucephalus, then Alexander, and so on, then one consciousness *as such* can produce another. It matters not that the consciousness 'Bucephalus' has first to excite in the cerebral tissue a certain disposure of molecules which are the material basis of the 'idea' Bucephalus. Nay, this would strengthen the position I take up, for it would demonstrate that the idea, No. 2, originated by the sensation or idea No. 1, can act directly on the brain to the disturbance and re-arrangement of its molecular state. Consciousness, in brief, would now itself be a dynamic force expending itself on matter and interfering

with what ought to be pure mechanical sequences. It would then be, inasmuch as it was a source of energy, not a series of consciousnesses merely, but a conscious reality or subject.

A strict theory of physical mechanism cannot admit this for a moment ;—the physical must always precede and condition the 'epi' of consciousness. The 'epi,' in the case imagined, disappears as a *mere* 'epi,' because it is now a, centre of energy expending itself on other forms of the 'epi' and on matter itself. The strict theory requires that the 'epi' shall be to dynamic cerebration as are the flash and roar of the cannon to the extrusion and motion of the projectile and its crashing into the hull of a ship. But according to the above reasoning, it would be much more than the flash and roar; it would be a distinct and definite interposition of a non-material element into a material sequence.

I am anxious, as a mere student, to present to myself a thorough-going physico-mechanical system in all its purity, and I find that consciousness as epi-phenomenon can never be allowed to enter into the series which results either in imagination or in action or in thought-products; still less can a preconceived idea (the chief explanation of will according to Münsterberg) which sets in motion my activity towards a certain result, be allowed, as such, a place in the series which leads to the effecting of that result. The moment that consciousness in any form enters, as a factor, causal or associative, into a series, the purely physical, I repeat, is hopelessly vitiated by that fact. The 'epi' then which we have found to be the important thing—inasmuch as it is the end of all cerebral molecular changes, that for which the cerebral activity exists, the consummation of its activity—would be something confessedly *not* matter *which yet determined matter.* The effect would turn round on the cause and transform it into an effect in its turn.

I consider that I am entitled to present the case as I have done, for we must be 'scientific' above all things; in other words, I suppose, 'exact' and true to experience. Do not borrow from biology to bolster up physics, or from mind, *i.e.*, consciousness and self-consciousness, to bolster up a dynamic physical theory. The supreme importance of *mind*, without which all would be a fiasco, is (I freely recognise) admitted; but it is from first to last in all its forms and products an epi-phenomenon—a mere appendage of a dynamic phenomenon. (Is it the case that Hamlet as *conceived* is an epi and that it rises to the dignity of a phenomenon, a *real*, when it is printed in a book?) I think that the calling mind an 'epi' is not a bad notion. It brings things to an issue. For it is manifest

that the theory is *not* that mind is *involved* in matter, but that mind and all its processes and products are caused by molecular movements of matter and *nothing else*, and that these carry out a series without the intervention of mind—consciousness or mind being merely an attendant aura or breath.

It surely must be so; for if I once admit that one consciousness *as such* can give rise to another consciousness without the intervention of matter, the case of the thoroughgoing physical automatist is lost. And, further, if I even admit that consciousness *a* can stimulate *matter b* so as to effect *consciousness b*, his case is lost. Again, if one consciousness can give rise to another, either immediately or mediately through nerve-tissue—one 'epi' to another 'epi,' —then assuredly there must be as much reality and substantiality and causal efficacy in the epi as in the phenomenon, *i.e.*, the molecular movement itself.

I do not wish to 'argue,' let it be understood. I am striving to form to myself a clear picture of an actual or possible theory. Here it is again in its highest and most complex form when Will and Purpose enter: Sophocles conceives the general scope of the "Antigone". What really happens is this: a complex of cerebral molecular movements finds itself in that physical disposure of parts which constitutes an Antigone-drama in its general scope as well as a prefigured completion, *i.e.*, the purpose of constructing a long series of molecular complexes which *constitute the dramatic poem*—"Antigone". The subordinate physical complexes which end in the completed drama are almost innumerable. It is only the *selected* physical complexes which are admitted into the constitution of the whole, and there are many other possibilities. Sophocles for example has flashed before him an 'epi' of Antigone compromising with the tyrant. The disposure of cerebral molecules which flash this out is somehow disturbed: they somehow do not fit into each other, there is a physical '*malaise*': another complex of cerebral molecules somehow forms itself because of this mechanical disturbance (the angles perhaps of some molecules not jointing comfortably into certain others and so effecting by inherent tendency to movement another arrangement), and Antigone then appears defiant and not compromising. This attitude of Antigone does not please *Sophocles* better, but it is a more pleasing arrangement for the molecules, and *so* pleases him better. And so on it goes; mechanical complexes of matter contending with other mechanical complexes, while Sophocles looks on amused (this amusement being again another mechanical complex;

that specific adjustment of molecules which yields the 'epi' humour), until, at last, the series of mechanical complexes have arranged themselves in a completed drama which Sophocles falsely says was conceived and written by him, whereas it was a series of material complexes in a dynamical and divine dance which reflected the "Antigone" as an 'epi'; and not even this in *him*, for *he* as a conscious subject does not exist at all. He is only an animal organism with the power of flashing out consciousnesses in response to dynamical movements—these consciousnesses being also heterogeneous to their cause. From first to last, consciousness (even sinking the hypothesis of 'subject') has had nothing to do. It is a flash trailing on in the wake of a cerebral molecular procession.

Accordingly, the whole of the "Antigone" might effect itself as a complete drama without the intervention of consciousness at all: this last is mere surplusage. We can picture a network of nerve-filaments so arranged as to be really and truly the "Antigone". If we could cut it out and fit it into the cerebrum of a cow, there might be flashed into the cow the whole drama. A drama, mark you, which Sophocles (*i.e.*, the material complex phenomenon capable of flashing which we call Sophocles) had never had any consciousness of, though it manufactured itself somehow in his cerebrum. It was in the cerebral organism, doubtless, of the individual we call Sophocles, but only as cerebral—a potentiality of consciousness but not yet consciousness, and at a critical moment it was transferred to the cow and there and then upset the milking for that day.

This, of course, is very interesting and throws a new light on human history and our daily life and our fancied personal achievements; the fancy and the achievements themselves being also cerebral arrangements troublesomely irrelevant.

But this is all absurd, you say: nobody believes this: I answer, everybody must believe this who denies that one consciousness-flash as such produces another, either immediately, or mediately through a stirring of nerve-cells.

One word, in this connexion, regarding that intense excitation of consciousness which we call the Emotions. The same news (note the *same* news) communicated to two different persons at the same time (*e.g.*, the battle of Waterloo) produces two totally opposite effects—sorrow and joy. That there is a physical accompaniment of these emotions nobody doubts—there is in the one case a physical depression somewhere in the vaso-motor system which may be called physical grief,—a lively response in the other case which may be called physical joy. It is manifest that these op-

posite effects cannot depend on *mere* dynamic cerebrations, for these up to the point of consciousness are precisely the same in both cases. It is the satisfaction of the desires and hopes of the conscious subject, or the reverse, which acts in the material organism, while that again doubtless reacts on the conscious subject: or if not this, it is the presence in one man of a disposure of nerve-tissue and in the other man of a totally different disposure—the one taking kindly to the new stimulation, the other unkindly.

Again, we speak of the "bowels of Compassion," but we do not mean that the compassion which melts the eye and rouses to sustained philanthropic activity is an affection of the intestinal canal; nor could we correctly say that canine affection is an affection of the caudal extremity.

In any case, I think I must now take it for granted that one consciousness *as such* produces another as such, either immediately, or mediately by setting up a specific cerebral activity.

If this be so, then we have matter effecting a consciousness and also a consciousness effecting a material change. Whatever may be the ultimate explanation, there actually exists a duality and reciprocity of two energies which are indissolubly connected and each of which has (so far as we yet see) an equal right to be called reality.[1]

The use of the word "energy," by-the-bye, suggests another consideration emphasised by Höffding and many others. If the generation of physical energy in the cells *causes* Consciousness of this or that object in presentation, the energy must expend itself in that; there is dissipation without return. What then becomes of the doctrine of Conservation? Again, I do not know whether this question has been yet put—If consciousness and the object in consciousness (for there is here a duality) are simply suggested at the terminal point of the cerebral activity (the Cartesian "occasional causes") and at that point a new element enters which begins an independent life of its own, what becomes of the doctrine of Continuity?

Granting the force of the preceding argument as far as it goes, the psycho-physical materialist may yet throw us back on the initiation of elementary sensations and point to the fact that nothing of the nature of con-

[1] Mr. Stout points out to me that a similar line of argument is followed in Herbert's *Modern Realism*. I have since read this book and find it full of subtle and powerful criticism. I may add that I now recall that the same conception is worked out in a brief tale called the *Island of Seelenlos*, by A. P. Laurie.

sciousness occurs in the infant, until a material stimulus has reached the centre of its organism and the terminal of molecular activity. Whatever may be said of an awakened and experienced consciousness as "a going concern" (so to speak), the *initiation* manifestly lies with the excitation of cerebral cells.

I am disposed to admit that nothing happens *to begin with* save *after* some stimulus. An appulse on the nerve-tissue is needed in order to effect the first consciousness and so set mind a-going. The cerebral movements, it is true, do not always at first (and indeed this applies all through life) succeed in effecting a *sensation*, by which term we mean a feeling or awareness of a presentation (apart from its pleasingness or painfulness). The movement in the nerve cells has to struggle into life as if it were forcing a cerebral path for itself up to a certain goal, this goal being an elicited feeling-awareness—all before this being indefinite feeling, a mere premonition of what is about to occur. The mother's breast is, or seems to be, *felt* by the new-born babe, and reflex co-ordinated action is probably all that is needed to explain the action of the babe in fastening on it. But a point comes when the vague and indefinite 'feeling' of the breast accompanying reflex action, gradually becomes a feeling-awareness of the said breast. There has been a progress here. What is sensation (or feeling-awareness) of the breast which is now 'object' to the infant? Call it the result of a prior molecular activity if you please: but also consider what *it is*. You say it is just a sensation—a new phenomenon of the phenomena of molecular activity, an *epi*-phenomenon or a post-phenomenon. But this is to content yourself with a word, and is not scientific. The truth is always in the reality, not in the symbol which merely serves to mark off the reality from other realities.

The *epi*, we may venture to say, in view of these facts, is more than a consciousness: it is a *subject*-consciousness. We mayendeavour to explain away this 'subject' as much as we please and show that it is an illusion; none the less is it a fact, and a very near fact, of experience which has to be dealt with. What is the objection to saying that the *epi* which is consciousness is also a conscious subject? Only this, that no *sense*-impression of subject is conveyed into me. A whole philosophy is here assumed in face of the manifest fact that "subject" by the very nature of the case could not by possibility be conveyed into any organism without committing suicide on the road. This, however, by the way.

I wish (even at the risk of appearing stupid and being accused of a naïveté which amounts to crudeness to which I readily plead guilty), to find what it is exactly that I am asked to accept as the truth of experience. Do we mean that the feeling-awareness of a presentation (object), in other words, an elementary consciousness, is a feeling-awareness inherent in cellular tissue as such? If we mean this, then (so long as we distinguish between mind and matter) nerve-cells have in their essential nature a capacity for consciousness. We must then define a nerve-cell as a *conscious bit of matter* requiring an extraneous stimulus from another bit of matter to realise itself in its highest manifestation, *i.e.*, as mind. It would then be reasonable enough to say that mind and matter are always in the atom *ab initio* synchronous, when viewed under the category of Time. Nay, we should be compelled to go further than this, and inasmuch as the *raison d'être* and ultimate function of the dual activity is mind, we should be compelled to desert the category of Time in seeking to determine which of the two activities was the ground of the other and made it possible.

But it is not held, I understand, that consciousness is in, and of, matter, but that consciousness or mind is a post-phenomenon of the real phenomenon called matter. In short, matter functions mind—functions that which is higher than itself and heterogeneous to itself. But if consciousness *a* can *as such* function consciousness *b* through matter as vehicle, *as we have found it can*, then mind (in a going consciousness at least) functions matter!

It would appear then that we cannot escape from the *equipollence* at least of the two moments mind and matter, any more than under the category of Time we can escape from their synchronousness. They are synchronous, equipollent, and reciprocal. So far good. Grant this further step in the investigation.

Even the equipollency, however, is disturbed when we find that the *end* of the whole process is mind. Whether mind is the *prius*, the beginning, or not, it must be, all through, dominant, *because* it is dominant in the end—in the completed functioning of the two energies, matter and mind. Is it not so? Aristotle would say so. We thus seem forced to the further conclusion, as far as we have gone, that of the two energies in the process, while we can give priority in time to neither, we must give superiority or dominance to the mind-energy, since mind is the ultimate function of the whole process.

We are here face to face with a dualism of a peculiar

kind, for it is a dualism in which one of the energies, mind, takes causal precedence of the other, and we thus seem to be driven to the further conclusion that it is in truth mind that is functioning all the time, but through matter as its necessary vehicle or reflex or condition (call it what we will). In other words, Consciousness or Mind is striving under the conditions and through the vehicle of matter to fulfil itself as mind. The latter seems to be most in accordance with fact and to be the true scientific report.

But perhaps we are looking at the whole phenomena too much as manifested in a "going consciousness". Let us then go back to the beginning. The initial sensation (and consequently any number of subsequent sensations) is a consequent of a matter-movement without which it would never exist. True: but if the matter-movement is not itself mind (and an atom a conscious bit of matter), it could not effect mind. Even according to the theory of physical causation the effect is a case of identity, a transmutation of Energy. There must then, in the *initiating* matter-excitation, be a mind-element inherent; and it is the two together which effect a consciousness. In short, what seems to us a mere excitation of nerve-cells is in reality to be regarded as a *one* movement consisting of two 'moments,' matter and mind. When we speak of 'moments' in a one movement we mean that the one moment is essential to the other and that they reflect themselves into each other reciprocally as constitutive of a one. There is mind under material conditions, and matter under mind conditions *ab initio;* the result is a sensation or elementary consciousness.

The blind pup before me then is a conscious subject asleep and is as yet little more than a potentiality beginning to work itself out into the full explication of conscious subject—that is into a duality of subject and object. The feeling-awareness of an object would be a contradiction in terms if it were not a feeling-awareness of something *not* subject.

Now, we must, at this point of our inquiry, once for all liberate ourselves from a crude dualism which (so far as finite mind is concerned) regards conscious mind as an entity placed inside a "clay cottage" as Locke has it, or which imagines it as if it were a bird in a cage fluttering about to escape from externally imposed conditions, or as if it were an unspaced pea pirouetting in the centre of a complex nerve-organism. As an imagination this may serve for the crude mind. A conscious subject, however, does not reside *in* man, but man,

is a conscious (also a self-conscious) organised subject: by which is merely meant that he is a conscious real being.

We have then, let us conclude, in the first nerve-movement which elicits consciousness, a movement constituted of two moments in mutual reflexion and reciprocity. Let us posit this.

The *prius*, however, in the two moments when we abstract one from the other and conceive them, as we must, under the category of Time, seems to be the matter-moment. This is so: but only to sense; because existing, as we do, under sense-conditions we must see the sensible or material first. The mind-moment in fact we do not see at all, because it is not an affair of the senses, but acquired by reflexion on the *total experience*. Nature, as material and sensible, always obtrudes itself on us first and to begin with. Our sense-organs always put in their claim to a first hearing; but the history of philosophy is a continual protest against their exclusive claim, on the very sufficient ground that they cannot explain experience.

We have then, let us conclude, two moments, mind and matter, in the one movement, and these as one result in a consciousness: and the moments are necessarily in reciprocity; but the matter-moment is to *sense* the *prius*. But in so far as they are two moments in one movement neither can be *prius*. The category of Time is here irrelevant, and, if it is to be applied at all, it must pronounce the two moments to be synchronous. Reciprocity carries with it the conclusion that the one moment is from the first, and all through life, necessary to the other.

But now, is there no ground, on the basis of the actual facts as yielded by the *total experience*, for taking a further step which carries us beyond the equipollence and reciprocity and synchronousness of the two moments, which as moments must be for ever indissoluble? I think there are facts which compel us further.

The terminus, end, issue of the whole cerebral movement is confessedly Consciousness or Mind. All the elements, static and dynamic, in any thing or presentate whatsoever are where they are with a view to the life-function of that thing. Now the ultimate functioning or end of any organism is in a special sense "the thing," because it is its differentiation from other things, that for which the total concrete exists. Here now we have to call in for explanation of sense-experience the necessaries of Reason. We say that in all the preliminary activities the functional end is dominant throughout and

ab initio. It is already in the *beginning*. Accordingly in the dual movement which issues in consciousness, Mind is *ab initio* dominant. It is mind which gives the whole series of phenomena (and it is in truth an infinite series which in its totality will probably for ever escape our ken) significance.

Is it not, then, a necessary conclusion that it is mind *by which* they are? Or, to put it more fully in accordance with previous phraseology, are we not forced to the conclusion that the matter-moment in its whole series is *by* mind as active and formative, and the mind-moment is not *by* matter but *by means of* matter as necessary condition? [1]

I do not mean by this that matter is the vehicle of mind, nor that it is merely symbolic of mind,—not even, that it is a phenomenal 'expression' of mind. Dualism properly conceived is neither on the one hand two atomic antagonisms, nor on the other such that the external and sensible is a mere show—little more than a metaphor. It is not a '*two*' but a *twofold*. Being *cum* Mind is ground and *prius* of the physical; but in Time they are synchronous. There is, in truth, a certain reality or substantiality in matter. This is, doubtless, a large and profound question, and I merely allude to it here that I may induce the reader to take up as regards consciousness and brain what impresses me as the true point of view.

It is, in truth, all a question of the point of view, and I wish to induce the reader to accept the Hegelian phrase 'reflected into' as fitly expressing the relation. Of the two relatively and reciprocally necessary moments which constitute the one movement, the mind-moment is reflected into the matter-moment as condition of its actuality and externalisation. In its ultimate statement the matter-moment is only Space and Motion. Mind effects itself under Spatio-Motor conditions. In the beginning, as in the end, mind is always dominant and first; but also in the beginning, as in the end, the reflexion into the 'other' (or matter) is equally necessary to existence and the real.

But the first or *prius* of experience, it may be objected, you have admitted, in the case of initial sensation, to be the matter-moment; and consequently, even granting a conscious subject, it is the matter-moment which elicits a consciousness in that subject, or (if you like) the subjectivity of the consciousness. Yes, to sense and observation under the category

[1] It is evident enough now, that the relation of cerebral cellular energy and mind energy is only a special case of the old and time-worn cosmic question of Mind and Matter, and that the ultimate solution of the question lies with metaphysics, not psychology.

of Time. But on an analysis of the *total* experience we are driven to a totally different mode of interpreting experience.

Further note a fallacy in the argument of the physiological materialist. He treats a *prius* as a cause. But the word cause, in any sense in which philosophy uses it, is alien to his system of thought: he borrows it for his purposes and does not return it to its owner. There can be to him merely a phenomenal sequence. From his point of view he is quite right: there is no cause anywhere, nothing but a sequent series of impressions and ideas. We beg him to hold by this consistently and then we may have a chance of forcing him into the acceptance of the true faith. There can with him be no cause; and the cerebral antecedent has nothing really to do with the mind sequent. There is one phenomenon, cerebral movements, and there is another phenomenon, consciousness. He is bound in consistency to deal with them as wholly separated and unrelated, though sequent, facts, and, having exhausted himself on the cerebral fact, to take up the new phenomenon, the mind-fact, and treat it as an isolated subject of inquiry having its own characters and its own laws. He will not, however, honestly do this, because he cannot shake off the causal category if he would; and, accordingly, he says that the cerebral *prius determines* the mind-*posterius*, first and last. To 'determine' is to bring about a result: the *prius* accordingly is an efficient and productive and regulative *prius*. His theory of knowledge, however, does not allow him this: sense can never give anything but sequence. Hume settled that point for ever. The physiological materialist, as a phenomenalist, cannot play fast and loose with a central conception like Cause. He must cross to the other side of the debatable line, and, with due form of law, become a citizen of the territory there, before he is entitled to the rights appertaining to citizenship.

There are many things which (like a ray of white light) appear simple which in truth are not so, as I have endeavoured to show elsewhere in the analysis of the act of percipience.[1] In truth there is nothing simple. So with the Causal Notion or Predicate. Much inevitable confusion has arisen from our not discerning that the causal predicate is in three moments, End, Form, and Kinetic Initiation. The functional 'end' of a thing or process is the cause, the formal or mediating movement is the ground of the end (the essence or differentiating determination of the thing), and the kinetic initiation is not a blind dynamic movement,

[1] *Metaphysica Nova et Vetusta.*

but a movement which already contains the form and end, while these also are contained in it.

To conclude; the dominant element and terminal issue of a cerebral movement is Mind, we have found: consciousness or mind is functional end: it is also functional form and functional beginning. Out of Time, the three moments are one: under the category of Time we have to think the one as *prius* of the other. And when we deal with things of sense, our life being a spatio-motor-temporal life, we see first that which we must see first. But that first is not therefore the cause of what is present to our total experience.

There are many phenomena of the relation and interaction of mind and cerebrum which are unexplained and are probably unexplainable. But if we look at the matter-moment as the reflexion of the mind-moment and necessary to its actualisation, we see how much that does happen may happen. The two moments are in reciprocity. Joyful news may cure a disease and the prospect of misfortune may cause one. We do not need the facts of hypnotism to teach us that matter may affect mind so long as we have experience of having eaten too much or too little. The (so-called) insoluble problem in truth is here before us—the universal problem of dualism. Accepting, as we do in the above argument, that matter is the reflexion of mind into externality (the forms of Space and Motion), we yet see clearly enough (we hope) that a crude dualism involving two independences is untenable. The "Occasional Causes" of Descartes is a brilliant suggestion and nothing more and may be passed by. If again we accept the doctrine of a parallelism of two independences, we are then involved, by the facts of our experience, in the positing of a pre-established harmony, and this again carries with it a necessary harmonising One. A fair-seeming theory, but not (it seems to me) a true record. For we have to regard the matter-moment as receiving somehow, in its function as reflect of mind, a quasi-independence, and so not merely reacting on mind but *acting* on it. So in Nature we daily see the material conditions *as such* acting on the plant to the depression of its life, nay, even to its extinction. All the more ingenious attempts to solve the general problem proceed on the suggestion of a parallel and independent series of events—the one mental, the other material. Mr. Herbert Spencer, for example, sees in the total experience "subjective and objective faces of the same thing". There is a certain plausibility in this, but what is "the thing" of which the material process and the mind-process are dual and parallel

phenomena? If this 'thing' or "Ultimate Reality" is causal in its operations in such a way as to preserve the parallelism, we are brought back to pre-established harmony; for parallelism prohibits communication between two lines. Mr. Shadworth Hodgson differs from Mr. Spencer (it seems to me) only in so far as he omits this "same thing". "The series of states in the one [consciousness or feeling] are the same with the series of states in the other [material process] only on its other side or aspect; and each series is complete in itself, containing an interminable succession of causes and effects, belonging to itself and not borrowed from the opposite aspect of the phenomena" (as quoted by Mr. Herbert). And yet Mr. Hodgson, I understand, recognises the *causal influence* of mind on cerebrum and the motory system and so throws over Spinozism. The two "series" could not then be parallel: they would be lines that are always crossing and recrossing each other. Then again, it seems to me that (though there is, doubtless, a sense in which every event of mind or consciousness is a 'phenomenon') we confound philosophical thinking, on this particular question at least, if we do not reserve the term for the sensible alone, inasmuch as the whole interest is as to that which is *not* phenomenon. If Mr. Hodgson escapes Mr. Spencer's "same thing," Mr. Spencer on the other hand would tell Mr. Hodgson that a "unit of feeling [consciousness] has nothing in common with a unit of motion,"[1] and that causative communication is impossible (*vide* Herbert).[2]

Then not only have we this action of the *matter-moment* on Mind as a fact; but we further see that consciousnesses, which are the issue of the dual movement, reflect themselves back into the cerebral tissue, and remain there for future use. This being so, they can by mere dynamical excitation and interaction be thrown back into

[1] *Principles of Psychology*, i. 62.

[2] Spinoza, I may remark, does not say that mind and body are two aspects of the "same thing," but that they are *una eademque res* conceived under the attribute of Extension and Thought (partiii., prop. ii. Sch.). And this, so that the concatenation of things is one and the same under whichever category they are viewed. But we must remember that underlying the whole of Spinoza's demonstration is the ultimate ground — *sola substantia*, of which Mind and Matter (Extension) are the two necessary attributes. We can scarcely admit that mind and brain are "one and the same thing" *conceived* under different attributes. We must amend this, so far, at least, as to say *existing* under different attributes, and this at once throws us back on Dualism—a dualism moreover in which the mind-moment and matter-moment are equivalent, and neither of them is the *prius* of the other in Time, nor yet Causally.

consciousness, and influence (nay, where the excitation is intense, determine) thought, will, purpose. The total experience of Mind seems to become (so to speak) materialised in brain. But in all such cases, cerebral movements *as such* are not effecting consciousness *as such*, but only particular kinds of consciousnesses, or it may be affecting the whole tone and colour of consciousness, for the time being. The brain is charged with Mind, through a long series of mind-activities.

The recognition of these facts of reciprocity might explain many phenomena normal and abnormal. Some difficulties remain, in connexion especially with hypnotic experimentation, but when these assume their final scientific form, they may yield to a rational explanation. I confess I see little in recent experimentation which was not anticipated, in principle, at least, by James Braid of Manchester.

The conclusion to which we are forced is that the cerebral molecular wave, vibration or movement (call it by what name we will) whereby the consciousness of an object in presentation is effected, is *itself* a movement in two moments, *viz.*, mind and its necessary reflexion into matter: a movement, further, of which mind is the dominant and ground moment and fact. The resultant is consciousness, feeling-awareness of an object, *i.e.*, Mind *qua* Mind.

There is not a two-sided active process of which one *side* may be called subjective, the other objective (this is mere phraseology); but a one mind-fact and process which reflects itself into a material process as mode of its actualisation; but this in such a way as to give a quasi-independence to the material fact and process so that it reacts on the mind-process (of whose *actuality* it is the condition).

A particular consciousness no sooner springs into being than it instantaneously reflects itself into cerebral tissue, as condition of its actualisation as a consciousness; just as Being *cum* Mind cosmically finds its actualisation only by means of the second moment of the universal concrete, *viz.*, matter.

The movement in cosmical experience is a movement upwards from the lower planes of Being *cum* Mind to the higher plane of Being *cum* Mind; and the movement, hitherto unconscious and blind, now becomes consciousness of things—that is duly reflects into itself, as a mirror or point of reflexion (so to speak), the world of appearances. Mind still further, in the supreme act of self-consciousness, doubles back on itself, and this is the starting-point for the still higher and more remarkable evolution which we find alone in man.

[It may be said that the above suggested explanation is merely a "point of view" and nothing else. That is true: but I submit that in fundamental conceptions all we can do is first to read ultimate facts correctly and thereafter to place ourselves at the "point of view" which best explains them. A point of view is in this sphere analogous to the hypothesis in physical investigation which establishes its truth by its power of explaining experience.]

Consciousnesses reflecting themselves into cerebral equivalents are, I have said, deposited there. This is a fact. Thus, the matter-moment which from the first has a certain independent activity is charged more and more with mind, and by repeating the movements under dynamical conditions (in which also, however, let us remember there is always mind), can of itself restore consciousnesses and maintain a dynamical communication and interaction among the cerebral equivalents of consciousnesses. Hence also dreams and reverie.

The dynamic cerebral matter-relations may, like all other matter, become disturbed, irregular and diseased *relatively to that of which it is the reflect*, and carry mind with it for the time. There being a necessary reciprocity between two moments in a one movement, it is easily conceivable that consciousnesses may fail so to emerge as to find the requisite physical energy into which to reflect themselves with a view to an actuality, and so die back. In the same way the molecular activities in the cerebrum may be so disposed as to suggest a consciousness, in ordinary circumstances, but may fail to do so because the conscious subject is preoccupied.

So far as illusions either self-originated or originated at the will of another are concerned, the wonder is not that they are possible but that they are not much more frequent.

I have asked the reader to look at the whole of this vexed question from the point of view of Mind reflecting itself into an externalisation as necessary condition of *actuality* —an externalisation which, by virtue of this very reflexion, acquires a certain independence in its outerness. I might now go on to deal with the next movement of Mind upwards —that which we call Self-consciousness, but that would cause me to exceed the limits of an article still further than I have already done.

One word more: I have assumed throughout, though I have endeavoured not to intrude the assumption, that animals and men are *conscious subjects—res consciæ*. I do

not think (spite of the remarkable union of Humeism and a spurious neo-Hegelianism) that we have made one step in advance of our forefathers who recognised, with the man in the street, a 'being here' conscious (a subject), and a 'being there' an external reality, and the resultant consciousness or presentation—now called quality, now sensation or idea, according as we regard it from the objective or subjective side. These are to be regarded as three moments in one act—separable in reflexion, inseparable in fact.

SUMMARY OF THE PRECEDING ARGUMENT.

A consciousness as such, we have found, leads to another consciousness [causally or by association], either non-mediately, or mediately though cerebral processes. A thorough-going and exclusively mechanical explanation of conscious experience is thus impossible.

The cerebral process has for its issue, terminus or end, consciousness or mind. Cerebral tissue accordingly, *either*, as matter, thinks, *or* must have a mind-element in it.[1] Matter does not as such think: therefore, the issue of its dynamical processes being mind, there is Mind in these processes. In brief and ultimately, an atom is to be conceived as mind-matter—a kind of Monad. Thus, even that which stimulates initial sensation would itself contain mind.

If matter as *such* could *feel or think*, then *matter would be mind* under the form of space and motion, and we should then be compelled to the same conclusions.

Whatever may be *prius* in sense-experience, the fact that mind is, by common consent, the issue and end of the *total* experience compels the further conclusion that mind is not only *in* the matter process, but is the dominant element *ab initio*, as well as in the terminus of the process.

A cerebral process is accordingly in two moments each essential to the other—a one duality. Mind is reflected into matter.

Matter, again, as essential to the total fact and the total experience, has, in so far as it is negation[2] of mind, a certain

[1] Prof. Clifford finds that he cannot explain the fact of consciousness without the help of "mind-stuff". It is impossible to criticise this position until we settle whether it is 'mind' *or* 'stuff' that is meant. Gassendi in criticising Epicurus talks of particles (seminal) which contain the elements of consciousness.

[2] Dualism, it must be granted, contains implicit the fact of a certain *limitation* of the Divine cosmic movement—a conception impossible to Spinozism.

independence and re-acts on mind. The dualism of the scheme of things *will not* be reduced by any ingenuity of speculation.

Effected consciousnesses, as the issue of mind and matter, also reflect themselves into the material organ, the cerebrum, and are deposited there. *They* are materialised, so to speak, and matter also is thereby so far further mentalised. It is charged with past results and processes as in and of mind.

Materialised mind or mentalised matter not only re-acts, but *acts*, *i.e.*, can not only restore by its own dynamical process former consciousnesses, but through dynamical interaction of its own parts and without stimulus *ab extra*, set up new simple and complex consciousnesses coherent or incoherent:—(automatism of the cerebrum).

Further, *ab initio*, the matter-moment *as such* (pure and simple) can, by virtue of its quasi-independence, affect the tone or colour and energy of consciousnesses; but cannot *as such* effect 'Consciousness'.

Finally, the Causal category, when applied to the two moments in a primary or elementary sensation, dismisses the fact that sense-experience is in time *prius* as of no account, and affirms the mind-moment as ground and beginning, just as it is admitted to be the end, of the whole process involved in the fact consciousness—that which alone gives the process significance and furnishes its *raison d'être*.

And still, the intertexture of mind and brain remains a problem.

IV.—PROF. JAMES' THEORY OF EMOTION.

By D. Irons.

Since Prof. James does not at the outset definitely commit himself to a theory of emotion in general, it will be more convenient perhaps if the criticism follow the order of exposition. In the coarser emotions, it is maintained, 'the bodily changes follow directly the perception of the exciting fact and our feeling of the same changes as they occur is the emotion'. 'We feel sorry because we cry, angry because we strike, afraid because we tremble.' 'Each emotion is the resultant of a sum of elements, and each element is caused by a physiological process of a sort already well known.' In emotional expression 'the movements are discharged fatally by the *vis a tergo* which the stimulus exerts on a nervous system framed to respond in just that way. The objects of our rage, love and terror have this peculiar sort of impulsive power. The impulsive quality of mental states is an attribute behind which we cannot go. . . . That with one creature and object it should be of one sort, with others of another sort, is a problem for evolutionary history to explain' (ii. 550-1). It must be noted that 'Feeling' here is synonymous with consciousness in general, and is a term used 'to cover sensation and thought indifferently' (i. 185). In this connexion such a use of the word is excessively misleading, and we shall habitually use the equivalent and less ambiguous phrase, consciousness of bodily change. It will be noticed further that this theory consists of two contentions, which, as they stand, have no logical connexion with one another. One could admit that the bodily changes follow directly the perception of the exciting fact, and yet deny that the emotion is simply the consciousness of these changes. It may be true that I am afraid because I tremble, and yet by no means the case that the fear is simply consciousness of the trembling. It does not follow then that what supports one position *de facto* supports the other, or that cases which prove but one prove the theory as a whole. From the real or alleged fact that the bodily changes come first, you cannot infer without any more ado that the emotion is simply the consciousness of the changes. On the contrary, we must insist that cases, which support but one contention at a time, are cases on which the theory as a whole cannot rest. We shall find that there is not a single case which

gives evidence in favour of the entire position maintained. The illegitimacy of the passage from the first part of the theory to the second is obscured by the fact that bodily changes if unusual and unaccountable almost inevitably cause psychical disturbance. As it is the exciting cause, however, the consciousness of the bodily disturbance cannot be the emotion. The plausibility of Prof. James' theory vanishes at once when it is pointed out, that, though consciousness of bodily disturbance almost always involves emotion, in and for itself this consciousness is not emotional at all. The confusion here indicated runs through the whole argument. On it depends all the concrete proof of the contention that emotion is simply the consciousness of bodily change, and any plausibility which the statement in itself possesses comes from the same source.

If we turn to the detailed proof, we find three different sets of cases which are adduced as evidence in favour of the view, that particular perceptions by a reflex mechanism immediately excite a series of bodily changes. In the first group there is only one instance (that of fainting at the sight of blood), in which the presumption of immediate physical influence can stand examination. It must be noted, however, that there was admittedly no emotion appropriate to the occasion. The case is thus a damaging one to the theory as a whole, for it raises the very difficult question, why consciousness of organic disturbance can at times remain merely such consciousness and at times appear in the form of emotion. In the start produced by an unusually loud sound, such as the firing of a cannon, physical influence is much too immediate for perception to have much to do with the bodily effects. The emotion in such circumstances is due to the fact that sudden organic disturbance, here as elsewhere, acts as exciting cause. In the remaining instances there is nothing to exclude the supposition that the physical changes arose from psychical disturbance caused by the perception of the object. 'We see an object moving in the woods, and we catch our breath instantly before any articulate idea of danger can arise.' This may be true, while it by no means follows that the physical effects succeeded the perception without any psychical intervention. An undefined fear may have intervened, for it is not necessary for one to fear something definite in order to be afraid. This is quite in accordance with Prof. James' own position as to the great part played in psychical life by the obscure. It is rather odd that here nothing should be taken into account but the definite, the distinct, the articulate. Further, the priority of the bodily

change cannot be proved directly, and all the presumption surely is in favour of the mental process. When we are surprised by the cutaneous shiver in listening to music and the drama, we shall doubtless find that we are at the same time in an emotionally excited condition. Here, again, when we suddenly become conscious of emotional excitement and organic perturbation at the same instant, we cannot simply assert the priority of the latter. Use is made of instances in which, it is said, emotion and knowledge are at variance. We fear though we 'positively know' there is no danger. Knowledge and emotion, however, never disagree at the moment. When one is afraid, the knowledge of safety is evidently much in the background, and, if it had not slipped out of consciousness for the moment, the fear could not have arisen. The next group of cases shows a decided change of position of which the author seems unaware. 'One who has already fainted at the sight of blood watches the preparations for a surgical operation with uncontrollable heart-sinking and anxiety. He anticipates certain feelings and the anticipation precipitates their arrival.' In the first place, whatever the uncontrollable anxiety may be, it is confessedly a psychical intervention between the particular perception and the physical effects. It is no longer maintained that the appropriate perception immediately and with fatal precision produces the bodily effects, and in all these cases the theory admittedly breaks down. In the second place, though the anticipation of the bodily changes may as exciting cause involve emotion, in and for itself this mere knowledge that certain changes will come is not such a psychical disturbance as uncontrollable anxiety. A similar criticism holds good for all those cases, in which 'the emotion which seems to precede the bodily symptoms' is asserted to be nothing but an anticipation of the symptoms themselves. In the third series of cases the change of position is even more remarkable. All that is maintained is, that here the immediate cause of emotion is a physical effect on the nerves. 'That the bodily changes take the lead and the emotion follows' can on occasion be admitted quite cheerfully on the ordinary theory; but such a state of matters is always awkward when it is asserted, that emotion is simply the consciousness of bodily change. Where there is no outward cause, the fact that the bodily changes come first is only possible, if there are other than bodily elements in emotion. If, for instance, in the case of terror cited (459) the emotion has a purely bodily cause (inability to breathe, fluttering of the heart, visceral change generally), and is itself nothing

but the consciousness of the physical disturbance, then the same conscious fact is at once the exciting object and the emotion itself. The way in which these so-called objectless emotional states are introduced obscures the fact, that the consciousness of bodily change, which is maintained to be the emotion, is at the same time the exciting object. An utterly objectless emotion is an impossibility in the nature of things; if there is no objective reference of some sort there is no emotion. The emotions of the insane are certainly not objectless, though the objects may be illusions. The fanciful explanation of those cases being thus based on a false assumption need not be further criticised. In morbid terror the bodily changes are feared on account of their unknown or indefinite evil consequences. This need not be a conscious process all through. Any unaccountable bodily disturbance naturally enough arouses instinctively a feeling of vague anxiety. In the extraordinary instances described on page 460 many mental and physical causes, both direct and indirect, are in all probability at work. One can imagine that, where long suffering has destroyed the balance of the mind, the dread naturally aroused by sudden and violent bodily changes should be much intensified. This instinctive feeling is not a fear of anything definite in the way of evil result. Hence the patient may say, and think, that the fear was objectless, though doubtless the very indefiniteness intensified the psychical disturbance. The imagination itself that the fear is objectless may, by unduly accentuating the abnormal nature of the whole process, still further increase the terror. Such cases are too complex to be dismissed with the simple statement that the whole psychical disturbance is simply the consciousness of the bodily changes which caused it.[1] In so-called pathological rage the utterly blind and frantic nature of the movements renders it probable, that they are due to attempts to relieve some pain, inwardly caused and so intense as to overmaster all other consciousness for the time being. Rage is not thus so indifferent with regard to the particular object, or set of objects, against which its fury is directed. If, on the other hand, movement as such, action of any sort as a relief from pain, is the sole end, such indifference is perfectly natural. The violence of the actions would of itself cause the purely

[1] The description of these cases seems a little too antithetical to be strictly accurate. One can scarcely imagine an individual in a state of intense fear, with a mind perfectly clear, fearing nothing, and calmly wondering all the while what in the world he is afraid of.

bodily changes, such as swollen face and veins. On the whole, then, we cannot conclude that the first part of the theory is strongly supported, and, when we think of the cases which might be cited to prove that particular perceptions do not have immediate bodily effects, this meagre array of questionable evidence seems still more insignificant.

'The vital argument of the whole theory' is limited in two ways. It confessedly applies only to strong emotions, not to emotion in general, and at best it could only prove the second contention, that emotion is the feeling of bodily change The argument rests essentially on the impossibility of conceiving what is left, when the bodily elements are abstracted from the concrete emotion. But, if you take away an element from any concrete state, it may be totally impossible to conceive the remaining element in isolation. This happens when the elements really only exist in union with one another, or when they are always conjoined in experience either in the way of mere concomitance or of cause and effect. Take away the kingdom from the king and the king as such has vanished. We do not conclude, however, on that account that the kingdom is the king. Nothing can be inferred, therefore, from the mere impossibility of abstracting the bodily element, and having something left which is conceivable or real. In three distinct cases this impossibility is present, though there is no doubt that there is more in the concrete state than the element abstracted. The vital argument, moreover, has been put by Prof. James in a way which renders refutation almost superfluous. It is simply as follows: Emotion dissociated from all bodily feeling is inconceivable, *therefore* emotion is simply bodily feeling; a purely disembodied human emotion cannot exist, *therefore* emotion is purely bodily. It is as if one should say: 'A purely shapeless apple cannot exist, therefore an apple is pure shape and nothing else'. This argument is closely connected with the assertion that it is impossible to detect the spiritual element even if it exists. Any total impression made on the mind, it is said, must be unanalysable whose elements are never experienced apart. That this does not apply in the present instance is easily proved. A disembodied human emotion is indeed an impossibility, since man is not a disembodied spirit, but though emotion is always associated with bodily changes, the latter is not always accompanied by emotion. In such circumstances it requires no great skill to detect on occasion the presence of an additional element. Further, though emotion must always

be accompanied by bodily change of some sort, the bodily changes may vary while it remains the same. There is no such thing as a perfectly definite set of organic changes constituting the expression of any particular emotion, and the 'perpetual variation' of the bodily elements, while the character of the emotion remains unchanged, renders discrimination of the spiritual element not only possible but unavoidable.

On the other hand, it is not difficult to show that something more than the bodily changes must be admitted, in order to make a tenable theory possible. Emotions, we are told, vary indefinitely both as to their constitution and the objects that call them forth. The constitution is the particular series of physical changes in each case. To say then that emotions vary in constitution means, that, while the bodily changes differ, the emotion remains the same. But, if consciousness of these changes alone is the emotion, where they differ the emotion differs also. That in a particular emotion the reflexes vary indefinitely with individuals and circumstances means really that we have an indefinite number of distinct emotions, and the obvious conclusion is, that in such circumstances emotions cannot be named at all. Any reflex is possible, and the elements actually vary indefinitely. There is therefore nothing on which a concept could be based. The very statement that emotions vary in constitution implies that there is some permanent element over and above the shifting physical changes. The fact thus stated by Prof. James, namely, that in any particular emotional state the bodily changes vary, cannot be expressed in terms of a theory on which the consciousness of these changes is the emotion. The proposition, that emotions of different individuals vary in constitution and exciting object, involves a distinction which this theory again cannot express. The constitution being the set of physical effects caused by the object, to maintain that this varies with individuals is to say that in different individuals the same object causes different reflexes. On the other hand, variation in the object means that the same object may cause different emotions, and, since different emotions are different series of reflexes, to assert that the object varies with individuals is simply to say again that in different individuals the same object may cause different reflexes. Only if a particular perception has a definite series of effects, can Prof. James' theory exist at all. Only if the changes do not vary in a particular emotional state, can it be even possible to assert that emotion is simply the consciousness of these. Only if the object's effects do not

vary, can evolution explain why with one perception the impulsive power should be of one sort rather than another, for only then *is* it of one sort rather than another. Such a position evidently cannot be maintained. There is no perception which 'goes off' in the same way always. A variation must be ascribed to the reflex effects of the perception, but the first result of this attempt, to make the first part of the theory square with the facts, is to cut away the only ground on which the second can find any footing. All through, in this connexion, Prof. James seems curiously unconscious of the scope of his admissions and statements. He depreciates the labours of those who 'reverently catalogue' the characteristic expressions of the several emotions. Instead of this, we are told, the causal questions now arise: 'Just what changes does this object, and what changes does that object excite?' and: 'How come they to excite these particular changes and no other?' If we remember that the changes any one object excites vary indefinitely, the second inquiry can only be interpreted: 'How come they to excite these particular changes and no other at this or that particular time?' If we keep in mind how far this would take us, before we had exhausted a single object, there is no doubt that, in applying it to emotion in general, we move to a deeper order of inquiry—deeper in the sense in which the bottomless pit is deeper than an ordinary bog. Though the cause is different, the causal form of inquiry is as open to the opponents of this theory as to Prof. James himself, and only when it is maintained that the essential element is the spiritual can the cataloguing of the varying emotional expressions be matter of indifference. If the expressions are everything, the conscious difference between emotions can only be accounted for by 'reverently cataloguing' in each case the particular bodily effects.

The facts which lead to the disastrous admissions just noted are easily explicable, if we understand by the spiritual element a feeling of subject towards object, and recognise that the object is to a great extent made appropriate by the way in which the subject feels related towards it. Cause is a wider term than exciting object. Generally the cause is a combination in varying proportions of subjective and objective elements. The subjective element is the cause of the indeterminateness in the rise of emotions, and explains why an object can arouse varying emotions, and sometimes be not emotional at all. At times the 'fringe' is different, and the object is thus for emotional purposes altogether created

or made anew. At times the variation is due to the varying ways, in which different subjects may feel towards objects practically the same. That most men in certain circumstances feel towards the same objects in exactly the same way is explained, partly by means of the objective element, partly by means of the fundamental unity of human nature and interests. Whatever the objective element may be, it can never by itself be the cause of any emotion. We are now in a position to lay bare the confusion, on which the view under discussion for the most part depends. Objects of terror, it is argued, make us tremble; if a ludicrous object is seen one must laugh or smile; objects of hate immediately and inevitably cause clenching of the fists and grinding of the teeth. Hence, it is concluded, the object acts directly on the body, and, as there can only be in consciousness the sensation of the bodily changes, there can be no spiritual element. In the main the facts are undeniably true. If I saw an object of terror I should inevitably start, tremble, or run away. *But if I were not afraid the object would not be an object of terror.* In other words, it is not the mere object which determines the physical effects, but the subjective feeling towards the object. This is what ultimately makes the object an object of terror, makes us start or tremble, is the spiritual element. It makes no difference that the fear may be instinctive. However instinctive the emotion may be, it is the feeling that is in the first place instinctive. Objects cannot be classed as objects of terror, &c., as they can be brought under the ordinary concepts. An emotional class is not something objective; each subject to a great extent classifies in this regard for itself, and even here time and circumstance make alteration and render stability impossible. There are, besides, very few objects which may not become so 'fringed' as to become emotionally exciting. There is thus no special class of perceptions with that impulsive power peculiar to emotion in general, and no particular perceptions with the impulsive power peculiar to particular emotions. When such statements are made, the spiritual element is not denied, but sunk in the object. The illegitimacy of the procedure is not less obvious than the difficulties it involves.

Other considerations are not wanting to show how impossible it is, to base a theory on the bodily changes alone. It is asserted that without these there would be no emotional warmth; the perception of the object would be purely cognitive. On the contrary, with the bodily changes alone this warmth can in no wise be ac-

counted for. The old confusion between consciousness of bodily disturbance involving and being emotion is rife here, and the use of the ordinary emotional terms obscures the real view maintained. The statement, that I hate such and such an individual, does not at all imply that I have any bad feelings towards him. It simply means that the perception of this individual immediately affects the action of my viscera, and, by a pre-organised mechanism, makes me show my teeth. There is no emotion in the ordinary vulgar sense of the word. The whole thing is just a succession of processes 'in the sensory and motor centres'. But how is it that the perception of the effects of the object has emotional warmth, while the perception of the object itself is purely cognitive? Why, if perceptions can of themselves have this warmth, is it the exclusive property of perception of organic disturbance? The emotional process, we are told, is not peculiar; it resembles the ordinary perceptive processes (ii. 473). How then can one perceptive process of itself suffuse with emotional warmth the cold intellectuality of another? This is not the only case where an opponent can find no better weapon than the very facts whose explanation, it is claimed, forms the peculiar merit of this theory. Objective reference, one of the most essential characteristics of emotion, cannot by any possibility be brought under the formula, consciousness of bodily change. We find (ii. 474) that the perception of the altered condition of muscle, skin, and viscus combines in consciousness with the perception of the exciting object, and transforms it from an object-simply-apprehended into an object-emotionally-felt. But combination in consciousness of emotion with its object is not what must be understood under the term objective reference. Such a fusion, if admissible, would simply render feeling of subject towards object all the more impossible. This varying attitude of subject to object, so impossible to express in terms of mere consciousness of fact, renders explicable that unique and unanalysable unity which is the characteristic of each emotion. Each emotion is, as Prof. James inadvertently says of the intellectual emotions belief and doubt, 'a psychic attitude,' something 'perfectly distinct but perfectly indescribable in words' (ii. 284, ii. 287). This does not mean that emotions cannot be classified. Human beings in the same world naturally react in similar ways, though each reaction is in itself something distinct and unanalysable. For this quality the mere consciousness of various bodily changes is no sort of a substitute. It seems to be implied that the various sensations fuse into a single

mental fact. Sensations, however, cannot combine in this fashion, and it is not difficult to see that as a matter of fact they don't. In fear, for instance, the trembling and heart-throbbing stand out in consciousness against each other and the remaining organic disturbances. It is not surprising to find so much stress laid upon combination of the different elements. There is an uncomfortable similarity in the bodily changes in all emotional states of the same strength. In joy, as well as in fear, we may have trembling, paleness, heart-throbbing, while the remaining internal disturbances are for the most part distinguishable, more from the character of the emotion which gives rise to them, than from any intrinsic difference. This emphasis on combination, however, proves too much, for, as the expressions of any emotion vary indefinitely, we really have an indefinite series of combinations in each case, that is, an indefinite number of particular emotions. To allow this impossible combination, therefore, is to let difficulties multiply. The theory is brought face to face with a dilemma. If the combination be regarded there are too many different emotions, if the elements be taken into account all emotions are too much the same. But in this case even the modified satisfaction of settling on one horn, as comfortably as may be, is denied. Where different emotions have common constituents, stress must be laid on the combination alone; where the same emotion has varying constituents, stress must be laid on the common elements alone. It really is difficult to play "Hamlet" in a satisfactory way after leaving out Hamlet himself. Concrete cases can be adduced to indicate how futile is the attempt to account for the facts by means of bodily changes alone. How is it that the emotion may vanish suddenly, while the bodily changes remain and die away slowly? An object on being abruptly presented in certain circumstances may cause intense fear. On being recognised as familiar the terror may vanish instantly, and, while the mental mood has changed, for a measurable lapse of time at least, all the bodily effects of the former state are present. The truth is, complicated series of bodily processes are physically incapable of changing as mental processes may. So, in the case of conflicting emotions, what permutations and combinations of bodily changes can correspond to the rapid appearance, disappearance, and reappearance of the various psychical moods? We may become clearly conscious of the bodily condition only after the emotion has spent its strength. Where emotions are so strong as to have become settled for a time, the bodily changes may be out of all proportion to the strength of

the psychical disturbance. Habitual melancholy, though it may have a physical cause, can hardly be maintained to be in all cases merely the permanent consciousness of an abiding bodily disturbance. Finally, it would be interesting to know how the humble everyday consciousness of bodily change becomes transmuted into emotion. No addition of oxygen to oxygen will produce water, and it cannot be, therefore, that so much bodily change appears in consciousness just as bodily change, and that an addition of so much more causes emotion to arise. Even to a believer in mental chemistry the metamorphosis presents no easy problem.

This then is the complete answer to the assertion that the spiritual element cannot be detected. It is not impossible to distinguish it from organic change, though it is impossible to separate it from bodily modification of some sort. The theory which really discards it cannot explain the facts, and some of them it cannot even express. The present theory, which pretends to discard it, presupposes it directly on occasion, and in general sinks it in the object. The proof both direct and indirect in favour of the purely psychical element is thus very strong, and 'experimental evidence' is not wanting. In the case cited on page 455 are present practically all the conditions of the experimental test, which Prof. James has invoked. The patient was entirely anæsthetic inside and out with the exception of one eye and one ear. Yet he manifested grief and shame on appropriate occasions, also fear, anger, astonishment. Prof. James raises the abstract doubt, that he went through the emotional expressions 'in cold blood'. Some such doubt is always possible in reference to the emotions of others, but where no ground is given it can carry no weight whatever, and the mere statement of the possibility cannot disguise the fact that the whole weight of the evidence is in favour of the opponents of a purely physiological theory of emotion.

The rest of the argument need only be lightly glanced at. The second and third objections are not very important, but the answers furnish some interesting material. For instance, it is quite true that a passion dies if expression is refused, but it is not very clear how this can be stated, if the expression is the passion. Where is the line drawn between the action which is constituent of emotion and the action which is result? Again, it is maintained (rightly enough), that the majority of emotional manifestations are in organs over which we have no control. There can therefore be no control of emotion, and it is not very obvious what support the

theory can derive from the alleged fact, that to go through the outward movement alone is an infallible way of arousing the emotion itself. It is not possible, as elsewhere hinted, that the outward expressions may by a sort of sympathy call up those internal disturbances, over which we have no control, and on which 'the chief part of the felt emotion depends'. If the bodily changes vary there can be no fixed connexion between outward and inward, and the first condition of the possibility of this sympathy is wanting. Those cases, where actors are mastered by the emotion of their parts, are very far from supporting the position in whose favour they are adduced. Anybody could at once become a consummate actor if the appropriate object, on being called up, went off instantly of its own accord. Equally simple would be the process if outward and inward expressions were sympathetically united. Actors, however, in such instances make the object appropriate. The actor must put himself in the psychic attitude of the character represented, see things in the same light, and so come to feel towards them in the same way. Whatever outward help may be used, to enter into the proper psychic attitude is the only way in which an emotion can be deliberately called up.

At first sight it is no easy matter to determine, how far the view we have been criticising is supposed to apply to the 'subtler' emotions. When it is asserted (ii. 467) that rapture, love, ambition, indignation, pride, &c., are fruits of the same soil as the grossest bodily sensations of pleasure and pain, the consolation is offered that, at the outset, the subtler emotions had been excepted. Then we find the statement that 'we have, or some of us seem to have, genuinely cerebral forms of pleasure and displeasure, apparently not agreeing in their mode of procedure with the coarser emotions'. The answer to the natural objection which here arises is an insistence that the pleasure in certain pure sensations and harmonious combinations of them is simple, primary and immediate, that æsthetic emotion pure and simple is an absolutely sensational experience. The objection is, that, since emotion admittedly in certain cases follows the perception without the intervention of bodily changes, it cannot be maintained that emotion in general is the consciousness of bodily change. The answer is an insistence, that, in æsthetic emotion at least, the emotion *is* unmediated by physical change. The objection is that the theory breaks down; the answer is an insistence that it does. The very fact, that a distinction is made between the primary and accompanying emotions, shows that the strict theory,

which is applied to the latter, cannot apply to the former. The concluding remark in this connexion is to the effect that cerebral processes are almost feelingless, till they summon help from the parts below. This denial of strength to the subtler emotions is at the same time an admission of their independence of organic change. Yet, from the description of the emotional process at the close of the whole argument (ii. 473-4), one must infer that the theory, at first applied to the coarser emotions alone, is supposed to have been successfully applied to the others without modification. Not only are admissions made here, the full significance of which seems to be overlooked, but it is always implied, that it is necessary for opponents to produce an emotion entirely free from bodily results. In the case of the intellectual emotion, this purely spiritual entity is sought for in persons whose mere emotional sensibility has been blunted. As one would naturally suppose, the emotions of a person, whose emotional sensibility has been blunted, are found to be rather pale and cold. For the rest we have a series of statements whose relevancy is more than questionable. It is perfectly true that familiarity may blunt emotion; that an expert is not alway thrilling with emotion before his subject; that a critic may condemn or praise on insufficient motives, or on different grounds from other people; and that the perception of rightness is different from the emotional thrill which may follow. The introduction of these details, however, merely obscures the real point at issue. Similarly there is nothing proved by the statement that, "unless we thrill at the case of justice." our state can hardly be called emotional at all. A believer in the ordinary theory could even say that, unless our body thrills, there is no emotion. The assertion can simply mean that emotion is necessarily accompanied by bodily change of some sort. It is the harmless statement of a matter of fact which nobody denies.

A review of the whole argument shows how slim and unstable the foundations are on which the theory rests. We have seen that the first contention breaks down, not only in the case of the subtler, but in the coarser emotions also. The admissions made under the pressure of fact alter the first part of the theory altogether, and thus render the second impossible. The proof of the latter is in any case singularly weak. The argument which supports it is an open fallacy; the concrete evidence depends on a confusion which conceals the fact, that mere consciousness of bodily change is not emotional. So far from it being impossible to detect the spiritual element, the statements of the theory itself show

how impossible it is to do without it. The test case is unquestionably antagonistic. The subtler emotions are the most vulnerable part of the position, and, precisely where the proof should be strongest, there is hardly a show of proof at all.

It cannot be said that appearances are more inviting, if, apart from the proof adduced, we examine the implications of this view and the Psychological principles on which it is based. It is essentially a sensational theory of emotion, and, whatever admissions are made, this position is always maintained. Thus the difference between the primary feeling of beauty and the accompanying emotions is simply that the one is sensation, the others are composed of sensations. The objection to this position does not rest on the belief that sensational processes are 'vile,' but on the fact, that we would have a large number of complete mental states without any element of feeling in the common acceptation of that term. An examination of the definition of emotion will make this clear. We find that, 'in physiological plan and essence, emotion and instinct are essentially the same'. Instinct is 'a mere excito-motor impulse, due to the pre-existence of a certain reflex arc in the nerve centres' (ii. 391). 'A particular perception calls forth particular movements and that is all.' The difference between emotion and instinct is purely external, and does not always hold. A particular perception, then, calls forth particular movements, we perceive these, and that is the whole emotional process. This connects itself with the fact that feeling is described as sensation, and habitually classed with the secondary qualities of objects. 'The nearer the object cognised comes to being a simple quality like hot, cold, red, noise, pain, the more the state of mind approaches pure sensation' (ii. 1). 'The pleasure given us by certain lines and masses, and combinations of colour and sound, is an absolutely sensational experience' (ii. 468). These statements again follow naturally from the general psychological position. The substantiation of this assertion will bring to light the real principles, on which this feelingless theory of emotion is based.

At the start Prof James professes a pure automatism (i. 182). What is habitually used, however, is a theory of brain causation. 'The schematism we have used [in association] is taken immediately from the analysis of objects into their elementary parts, and only extended by analogy to the brain. And yet it is only as incorporated in the brain that such a schematism can represent anything *causal*. This to my

mind is the conclusive reason for saying that the order of presentation of the mind's material is due to cerebral physiology alone' (i. 593). 'Whatever the physical peculiarity may be, *it* is the cause why a man, whose brain has it, reasons so much, whilst his horse, whose brain lacks it, reasons so little' (ii. 366). 'I do not see how any one can fail (especially when the mythologic dynamism of separate 'ideas' is translated into that of brain processes) to recognise the fascinating simplicity of some such view as this'[1] (ii. 576).

'Sensations and thoughts are but cross sections, as it were, of currents whose essential consequence is motion, and which no sooner run in at one nerve than they run out again at another' (ii. 526). The nervous current comes in, then, emits a flash of consciousness, and (having satisfied the proprieties) pursues its outward course by the path of least resistance. This is what is meant by the statement that all consciousness is impulsive. On such a view, however, consciousness can have no real power; it is merely an incident in a motor process. So we find that the assertion appears in the modified form, 'consciousness or the neural process which goes with it is in its very nature impulsive' (ii. 535). When Prof. James recollects himself, however, he says, bluntly enough, that the dynamism of the ideas is mythological, it is the nerve processes that are active. These nerve currents help and inhibit one another. The feeling of will power being exercised is simply that of the breaking up of an inhibition. 'A waking man's behaviour is at all times the resultant of two opposing neural forces' (ii. 527). Several things obscure the fact that this is the real foundation on which the psychological system rests. One, already mentioned, is the assertion that consciousness is in its very nature impulsive. Another is the form which is kept up in places, of a theory of pure concomitance. But it is evident, from what has been said, that there can be no 'blank unmediated correspondence' of mental states and brain states. The mental process can no more accompany the physical without danger to its independence than a sheep can accompany a hungry tiger, and to talk of expressing the mental fact in terms of brain processes has the same sinister significance as to talk of expressing the sheep in terms of tiger tissue. Equally unwarranted and equally

[1] The emphasis here is on 'idea,' not on 'separate'. Prof. James does not object to the dynamism of separate brain processes, and finds that his brain scheme gives 'a certain basis of reality to those hideously fabulous performances of the Herbartian Vorstellungen' (ii. 585).

misleading is the introduction of the selective power of consciousness. This activity is only invoked when mechanical reasons fail (ii. 584). Mechanical reasons, however, can never suffice unless the unity of the self is denied. Having once made this denial, and claimed the majority of human volitions to be 'resultants of interests and associations whose strength and sequence are mechanically determined,' one cannot on occasion bring back the self without any more ado. The self cannot thus appear on earth in time of need and vanish again to some heavenly abode. Either it is always there and must always be reckoned with, or it can be dispensed with altogether. A mechanical theory, such as the one we have been discussing, necessarily ignores feeling, for its explanations involve the denial of the unity of life as well as that of conscious self.[1] When the present theory of emotion is found to belong to a system of Psychology, in which feeling can find no place, the full significance of the mechanical descriptions of the emotional process becomes evident. This view of emotion is seen to form part of a system of purely physical determinism, in which the unity of self and organism are alike set at naught.[2]

We do not require to be satisfied with abstract statements here. It is not difficult to see that in consequence of its mechanical form the theory in question gets into inextri-

[1] I cannot do better than refer to Prof. Seth's article in the *Contemporary Review* (April, 1893), in support of this assertion, that explanation by means of 'nervous currents' and 'paths of least resistance' denies that unity of life, of which feeling is the inward expression.

[2] Prof. James does not *mean* to establish a purely mechanical theory. He sees, of course, that such an attempt must fail. The trouble is that the higher principles are merely put alongside of the lower, the latter being adhered to without change. Though, for instance, admissions are made with regard to feeling (ii. 583-4), it is never recognised as the first result of every stimulus on any organism whatever, and, as reaction of the living being, inconsistent with the notion of nervous currents making their way through the organism in a purely mechanical fashion. Similarly, the mechanical conception of mere ideas (without feeling) 'exploding' into action is supposed to be reconcilable with the conception of their dependence on a self. The whole difficulty arises, in the first instance, from the delusion that it is treating Psychology 'as a natural science,' to deny it the assumptions its subject-matter demands, and to found it on those of Physics. When this is found to be impossible, one would naturally expect that the views, founded on presuppositions that turn out to be inadequate, should be revised in light of the further hypothesis called in. This is not done, however, and, since the additions are not justified, nor shown to be reconcilable with the original assumptions, they must be treated as excrescences. Needless to say, if this revision had been carried out, the analysis of emotion into sensory and motor elements would have been found inconsistent with the fundamental hypothesis of Psychology.

cable difficulties. To explain one aspect of the facts, the physical effects due to any particular perception must be regarded as 'pre-ordained'; to explain another aspect, they must be held to 'vary indefinitely'. Pre-ordained changes that vary indefinitely will always be somewhat of a mystery to those not accustomed to overcome 'dialectical oppositions'. Taking a special instance, we find that the peculiar rapidity with which emotions 'blunt themselves by repetition' is due to the 'peculiar fact,' that the diffusive wave of reflex effects tends always to become more narrow. This is simply expressing the fact in physical terms, and offering it thus disguised as its own explanation. Besides, when one is repeatedly angry with the same person on the same grounds, it does not seem to be always true, that on the second occasion the anger is necessarily less, and that by every repetition it gradually tapers off. Nervous currents may have many peculiar qualities, but, once started in any direction, there is a fatal lack of elasticity in their working which no addition of other properties will make good.

Here, as elsewhere in Psychology, the self must be presupposed to render the facts intelligible. The self reacts as a whole to stimulus, and one phase of this reaction is that feeling towards the object which we call emotion. The essential element in any emotion is the particular way in which the subject is disposed towards the object. This is not pleasure or pain though it may be dependent on these forms of feeling. Feeling in general must not be confounded with pleasure and pain simply. Under feeling should be included on the one hand pleasure and pain, and on the other that feeling towards the object, which for the present we may call feeling attitude. The term is not unexceptionable, but is used for convenience instead of some such formula as 'feeling in relation to,' 'feeling in regard to'. Both classes of feeling are expressions of the unity of the self, and as such cannot be presented. Pleasure and pain, however, are directly effects of the object on the subject. They differ from feeling attitude in that the line of direction, so to speak, is from the object to the self, while in the latter it is from the self outwards. One may hate a person who has caused him pain, but the hate is not the pain caused. It is an attitude towards the individual, which is *per se* not pain at all, but a distinct feeling with a peculiar character all its own. So melancholy is simply a certain way of feeling towards the world in general. It again may be caused by pain, but is itself a characteristic feeling that is not pain, and may indeed be accompanied by a dismal sort of pleasure. The

feeling of good-will towards all men, which is felt in certain happy conjunctions of circumstances, is not pleasure afforded by the world in general. It is as distinct and yet as inseparable from the pleasure felt at the moment as concave from convex. It is in truth impossible to feel pleasure or pain *towards* an object, and common language is not guilty of the confusion here involved. It makes a distinction between being pained and having bad feelings towards somebody in consequence. The confusion in Psychology between the two is the less excusable since they do not necessarily accompany one another. Bad feeling-towards does not inevitably result when pain is caused. The same thing holds in the case of pleasure. If I am an ascetic, the fact that an object gives pleasure does not cause any favourable feeling towards it, but the reverse. It is not a sufficient account of the matter, therefore, to say that an object is perceived, pleasure or pain felt, and action in consequence results. At the very least the emendation must be made, that, on account of the pleasure or pain, the object is felt towards in a certain way. It is this attitude of feeling on the part of the self which is the ultimate determinant of the nature of the action. If hate and fear as feeling are simply so much pain, it can never be evident why the pain from the object should in the one case cause flight and in the other a blow. If, on the other hand, these emotions are recognised as totally distinct ways of feeling towards the object, the difference in the actions is easily explicable. Further, the feeling attitude is determined not on Hedonistic grounds alone, but by all the relations in which the object stands, or is imagined to stand, with regard to the self, or the self chosen for realisation. As the relations are almost indefinitely numerous, so are the attitudes of feeling. Finally, though feeling attitude must always intervene between cognition and action, felt pleasure or pain need not. The mere thought of a pleasure impels the voluptuary to action. Though the anticipation of pleasure remembered or inferred is active, this does not introduce a link of actual feeling, for the anticipation of a feeling is not feeling. It is true that the thought itself may give pleasure, but this determines his attitude only to the object as ideal. The appropriate action here is retention of the *thought*. When the thought is realised the determinant is not pleasure in the thought, but that attitude towards the object which is due to the anticipation of pleasure remembered or inferred. In such a case, on the ordinary view, there would be a complete mental state without any element of feeling. The distinction, therefore, must be made

between feeling in regard to the object, and feeling directly caused by it. In both cases it might be said that the feeling is caused by the object, but in the former it is mediated more by the activity of the self. It is in all cases possible to avoid bad feeling, it is not always possible to avoid being pained. Under feeling attitude should be included emotion, interest, sentiment, habitual moods and temperament, certain feelings which hover on the verge of emotion such as content and discontent, and others which at present have no very definite place in Psychology, such as expectation, preference, indifference, tolerance, the *blasé* feeling. It is not easy to see how all these can arise if feeling is synonymous with pleasure and pain.

In the case of emotion attempts have been made to distinguish the peculiar feeling from ordinary pleasure or pain by the fact that it has an object. This is so far right, in that it brings out the fact that emotion is feeling towards an object, but, as has been stated, just for that reason it cannot be pleasure or pain. Further, it is not possible to distinguish the different emotions from one another chiefly by means of the intellectual element present in the special concrete state. In no sense can cognition and feeling fuse, and if this happened the objective reference of emotion would disappear. If the feeling element in any particular emotion is pain, it is pain all the world over whatever be its object or cause. But hate and fear do not differ in that the amount of pain is different. Conceivably enough this might be the same in both, and the difference could never be so great as the distinction between the two. Nor are they distinguishable in that the object is different. This is purely external, and does not meet the fact that the feelings themselves are perfectly distinct. If it is difficult to imagine the process by means of which consciousness of bodily change is transmuted into emotion, the transformation in the case of pleasure and pain is equally mysterious, and, if the difference between emotions cannot be accounted for by the variation of common physical elements, still less can it be explained by the more limited variations of two purely psychical elements. The facts of the case are, that emotion as feeling is ever distinct from pleasure or pain, and each emotional feeling is unique in kind.

It is not sufficient to separate emotion from feeling as pleasure or pain; it must be further distinguished from the other forms of feeling attitude. Usually, if the action follows at once, feeling in this sense does not appear in consciousness at all, and is known only by its effects. From the con-

scious forms emotion is distinguished by its strength and felt diffusedness. Strength does not necessarily imply violence. The violent emotions, which have all marked bodily results, are connected with the self in the selfish and narrow sense of the word. There are emotions really stronger in which the organic perturbation is not so great, and in them the felt diffusedness is prominent. There is a diffused and relatively permanent glow of feeling which may be quite peaceful. The ordinary expression 'deeply moved' seems to bring out what is perhaps the most characteristic feature of emotion as distinguished from feeling attitude in general. Our whole being is moved; we act as one and feel that we do so. This sense of unity is, of course, the characteristic of all strong feeling. The distinction between emotion and the other degrees of feeling attitude is necessarily to some extent a shifting one. No sharp line can be drawn, and forms normally weak may rise on occasion to emotional strength.

Every emotion has bodily effects of some sort either external or internal. There is nothing anomalous in either class of effects, though an air of mystery seems to hang round both in all the ordinary accounts of emotion. The external results are usually summed up under the term 'emotional expression'. These, however, are not the only emotional expressions by any means. In anger, for instance, the primary expression is doubtless a blow, not a facial or merely bodily movement. The so-called 'emotional expressions' ending with the body are due to the natural outlet being stopped, either by the sheer violence of the feeling, or by various restraining influences. Even were they the only expressions, they are not, as they stand, a whit different from any other feeling-prompted actions. In strong emotions the ordinary internal effects of feeling on the body are intensified, and we have what is perhaps the most peculiar physical effect, namely, organic perturbation. The immediacy of this result and its prominence in consciousness has given rise to the definition of emotion as a compound of spiritual and physical elements. This seems to me to obscure the essential nature of the fact. If emotion is essentially a purely psychical process with bodily results, then, in the interests of clear thinking, it should be separated from its concrete concomitants. It is, of course, an abstraction when so separated. The case is different if it be maintained that emotion is essentially a mixture. Such a theory, however, has little to recommend it, and is never, I think, seriously meant. The general hesitation to separate

emotion as such from the concrete emotional state is a fact of some significance. Dr. Ward, for instance, asserts that emotion is a concrete state and must not be confounded with feeling, for besides the pleasure or pain there is a definite object and a characteristic expression in action. As already pointed out, all feeling as the last determinant to action must have a definite object, and, since the nature of the action is determined by the nature of the feeling, all feeling of this sort has characteristic expression. The strange thing is that, after being analysed into knowledge, feeling and will, the concrete state should be kept sacred from actual analytic separation. This procedure is no mere matter of terminology. It is evident from the reasons given, that it is due chiefly to a want of clearness as to the nature of the purely psychical element. So long as emotional feeling is regarded as mere pleasure or pain, so long can you distinguish the feeling element in the concrete state without being able to separate it even in thought. It is only when the characteristics of emotion are brought within the feeling itself, and the real nature of the spiritual element thus brought to light, that the latter can be separated out and a really effective answer made to those theories which deny its existence.

The general conclusion is, that emotion is not consciousness of bodily change but feeling, not pleasure or pain but feeling attitude.

V.—DISCUSSIONS.

PROFESSOR EBBINGHAUS' THEORY OF COLOUR VISION.

After my paper on "Theories of Light Sensation," which appeared in MIND, N. S., No. 8, had left my hands, I received Prof. Ebbinghaus' article, "Theorie des Farbensehens" in the *Zeitschrift für Psychologie u. Phys. der Sinnesorgane* (Bd. v., Heft 3 u. 4), and at the request of the editor of MIND I add a few words in regard to it. Prof. Ebbinghaus' theory is already familiar to English readers from the account which he gave of it before the Second International Congress of Psychologists, in August, 1892. It is, in brief, that what is known as the visual purple (which turns first yellow and then white on exposure to strong light) is identical with a photo-chemical substance of such a nature that its primary partial dissociation is the cause of the sensation of yellow, and its secondary completed dissociation is the cause of the sensation of blue; that in the cones, which, so far as is known, contain no visual purple, that substance does in reality exist, but is concealed by the presence of a second visual substance, which is successively green, red and white in colour, and which is the source of our sensations of red and green; that there is a third colourless substance in rods and cones alike, whose decomposition is the source of the sensations of the totally colour-blind, and of the normal eye when temporally colour-blind owing to insufficient illumination, besides contributing to the brightness of all sensations of light.

Prof. Ebbinghaus begins his article with very effective argument against the theories of Helmholtz and of Hering,—so effective that it would seem that no dispassionate reader could fail to see the entire inadequacy of both of those theories. The psychological argument against the Helmholtz theory (if I may call it so), which seems to me a very strong one, he does not, indeed, seem to feel the force of. But the argument based upon Fick's (in reality, Helmholtz') explanation of the loss of colour sense in faint light, in the periphery of the eye, and in the eye of the totally colour-blind, he sets out in very convincing terms. His discussion of the facts of colour-mixture I shall return to later.

In summing up the evidence against the theory of Hering, Prof. Ebbinghaus finds the most important point to be the fact that two greys composed one of red and green and the other of yellow and blue, and made equally bright, do not continue to be of equal brightness under changed illumination. This is at once seen to be inconsistent with the assumption that complementary colours destroy each other, when it is remembered that the distribution curve of white light for the totally colour-blind along the spectrum does *not* change for change of objective illumination,

and hence that it is impossible to attribute the phenomenon just described to anything else than the contribution made to the total effect of brightness by the colour substances. Prof. Ebbinghaus does not over-estimate the importance of this fact; it seems, indeed, to furnish a quite unanswerable argument against Hering's theory, or any theory in which complementary colour processes are supposed to totally destroy each other. But I am surprised to find that he describes it in terms that imply that it is a discovery which is now for the first time announced. I described the experiment, briefly, at the London Congress of Psychologists, more than a year ago, and it was also distinctly mentioned in the printed abstract of my paper which was distributed at the time, as well as in the *Proceedings of the Congress*. Prof. Ebbinghaus' discovery of the fact is apparently independent of mine, for he supposes that the phenomenon cannot be exhibited on the colour-wheel. That is not the case; with fittingly chosen papers (that is, with a red and green which need no addition of blue or yellow to make a pure grey, and with a corresponding blue and yellow) it is perfectly evident on the colour-wheel. The fact has since been called in question by Prof. Hering, and it will therefore be necessary to repeat the experiment.

I confess that Prof. Ebbinghaus' statement of the position against Helmholtz and Hering seems to me to be far more cogent than his attempt to identify one of the colour substances with the visual purple of the retina, and for the following reasons (in briefest possible statement):—

1. To say that the purple substance becomes yellow under the influence of light is not a complete description of its colour-changes. It passes through the following stages, in the living eye as well as in solution: "purpurroth, reinroth, zeigelroth, orange, rosa, chamois, gelb" (Helmholtz,[1] *Phys. Optik*, p. 266).

But a very violet purple (which is what Prof. Ebbinghaus assumes as the blue substance in the human eye) if it were to have a yellow substance gradually mixed with it, would pass through shades of palest pink and almost white to yellow. Hence the decomposition of the purple substance under the influence of light cannot be so simple as Prof. Ebbinghaus supposes; and if the end-colours (purple and yellow) are of such fundamental importance, why should not the intermediate colours have some significance attributed to them? If the substance could be used for a colour theory at all, it would seem to be better fitted to Wundt's theory, in which it is assumed that there is a larger number of fundamental colours than four.

2. It is well known that the visual purple is so little acted

[1] As I am at present beyond the reach of books, I can only make reference, for the properties of the visual purple, to the careful abstract of Kühne's work given by Helmholtz.

upon by yellow light that while the eyes in which it is to be detected must, in general, be prepared very rapidly and almost in the dark, if the illumination made use of is the pure yellow of the sodium flame "no great haste is necessary" (p. 265). The assumption that a substance which is with difficulty acted upon by yellow light is the source of our sensations of yellow seems a little forced; nevertheless the line D is very near the maximum of Prof. Ebbinghaus' curve for yellow, for the person who is green-blind as well as for the normal eye.

3. It seems impossible that the cones should contain the purple stuff (concealed, as Prof. Ebbinghaus supposes, by a green stuff) for the following reason: It is beyond question that it is the purple-yellow substance of the rods which is the source of the fluorescence of the retina; for fluorescence occurs wherever in the retina that substance is found, and it is absent in that part of the retina (the outer edge) in which the rods are free from it. Now if the cones contained the purple-yellow substance, it is difficult to see why the mere addition of the red-green substance should prevent it from becoming fluorescent; and yet the fovea "in well-preserved human eyes appears as a dark spot in the ultra-violet rays of the spectrum, and the more strikingly dark the more the rods in the neighbourhood have begun to fluoresce" (p. 266).

4. There is a still more serious difficulty in the way of Prof. Ebbinghaus' hypothesis for the fovea. The reason that a red-green substance has never been detected, he says, is because it is *in the first instance* green, and the purple-yellow substance causes it to look colourless, since purple and green are complementary colours.[1]

But why should the inquiring mind be content with an explanation of the first stage only? These substances, in order to play their part, must have, in all, the following colours:—

First Stage.	*Second Stage.*
A. Purple . .	Yellow.
B. Green . . .	Red.

Admitting that when they are purple and green they conceal each other, now can they possibly do so upon all those occasions when they have both reached the second stage, or when one is in the first stage and the other in the second? Why should not the fovea be sometimes yellow-green and sometimes purple-red, and sometimes reddish-yellow? As a matter of fact the fovea of a human eye freshly extirpated with all the necessary precautions Kühne found to be "durchaus farblos". And it must be remembered that while the first stage of these substances might

[1] Convenient purple substance, which is *blue* enough to give us the complementary sensation to that furnished by the yellow substance, and at the same time *red* enough to be, objectively, complementary to green!

possibly escape observation on account of too slow extirpation, the *second* stage could not possibly do so. If the first stage alone of both substances should always have been hit upon, I cannot help thinking that it, to use Ebbinghaus' words in regard to a similar coincidence, "etwas Wunderbares haben würde"; but that it should also persist during the entire continuance of the experiment is wholly inconsistent with the known properties of the one substance and the assumed properties of the other.

5. Prof. Ebbinghaus admits that the assumption of a visual substance which must undergo the yellow dissociation before it is capable of being acted on by blue light seems at first sight to be a little awkward. After exposure to darkness, when the retina is thoroughly purple, how is it that we are not at least partially blind to blue? He meets this objection by saying that, although none of the yellow stuff is visible at such times, there is still enough of it present, in absolute quantity, to furnish unimpaired sensibility to blue. This, we may admit; but in that case what becomes of the character of the substance as revealed by observation? The property of the visual purple which is its *distinguishing characteristic* is that at the end of a perfectly definite time it has become yellow, and at the end of another definite time it has become white. *But this feature of the substance is absolutely without significance in Prof. Ebbinghaus' theory.* If we must admit that when the retina is wholly purple there is still enough of the yellow substance to give us unimpaired sensations of blue, and that when the retina is wholly yellow there is still enough of the purple substance to give us unimpaired sensations of yellow, and that when the purple and the yellow stuff have, as far as our power of detecting them objectively is concerned, *both* wholly disappeared our sensations of both yellow and blue exist in all their original intensity, why not go a step farther, and admit that the colour of the visual substance has nothing to do with the case? In other words, if its actual changes of colour are *without significance* in vision, why is it not better to drop the visual purple altogether (and with it the difficulty of accounting for the constant colourlessness of the fovea) and to assume that vision goes on by means of a hypothetical photo-chemical substance of no particular colour? For it must be observed that the *colour* of the substance gives no aid to the theory; exactly as many hypothetical properties have to be assumed for a substance which has colour as for one which has not. It is common to say that if a substance looks green, it is because it has absorbed red rays of light, but it is more exact to say that it is because it reflects green rays; it is not true that it has absorbed any *more* red rays than it would have done if it had looked white, but only that it has reflected more green rays. Now if the substance is of such a nature as *not to be acted on* by green rays, I do not see that it makes very much difference whether those green rays are sent back into the atmosphere from its surface

or not. Certainly the men who have developed the process of photographing in colours did not search for chemical substances capable of undergoing selective dissociation by light, among substances which exhibited to the eye the corresponding *colour*.

Apart from its connexion with the visual purple, Prof. Ebbinghaus' theory would belong to the same category of theories with Donders' and mine; it assumes (1) a separate white process and (2) complementary colours which co-operate to reproduce the white process instead of wholly destroying each other and leaving behind a residuum of white.

Symbolical representation of Prof. Ebbinghaus' scheme for dissociation. Three different photo-chemical substances of which two are capable of undergoing bipartite dissociation, and the other undergoes only total dissociation.

Symbolical representation of my scheme for dissociation. One photo-chemical substance which exists in two states,—in the more primitive state it undergoes total dissociation and in the more highly developed state it undergoes tripartite dissociation.

Donders' Theory differs from that of Ebbinghaus in the circumstance that for him the three substances are all *one and the same substance*, which is capable of undergoing two different sorts of bipartite dissociation, and that the blue and green dissociations do not have to wait to follow upon yellow and red dissociations. Both of these points of difference are points of superiority. But his theory does not make adequate representation of the extraordinary fact which lies at the very basis of colour phenomena,—the fact that complementary colour pairs are indistinguishable from each other and also from white light. Prof. Ebbinghaus' manner of accounting for this phenomenon is also infelicitous. He supposes that the colour-quality of a light sensation is due to a rhythmicality in the energy set free by the chemical decomposition, and that the rhythmicalities of blue and yellow (and of red and green) destroy each other while leaving behind an undiminished total amount of energy. It is true that when two sounds have the right relation of rhythmicality, *and when they also start from their respective sources with the right relation of time*, they antagonise each other. But what results is silence. So when any sort of rhythmical motions suffer complete interference, what results is rest. What kind of mechanical shocks upon the nerve-ends must we conceive of, in order to imagine that two rhythmicalities destroy each other while leaving a total amount of *energy* equal to the combined energy of the two motions? I do not find it easy to conceive of rhythmical motion of this nature.

There is another point,—the fact that complementary colours become colourless is a *defect* of vision. The colour sense exists at all merely for the purpose of enabling us to distinguish limited portions of the spectrum from the entire spectrum; but certain

limited portions of the spectrum,—namely, two purest colour tones, if rightly fitted together,—fail to give us any effect of colour. (There is no reason in external nature why we should not have a whole series of sensations due to varying mixtures of yellow and blue, or of purple and green.) Upon my theory this is an *unavoidable necessity* of the structure of the mechanism by which colour vision has been secured. Upon Prof. Ebbinghaus', it is not; to make two rhythmicalities counteract each other requires a most careful fitting together in time and place. Why *should* the rhythmicalities of motion which give us yellow and blue be so chosen as to destroy each other whenever they occur together, with no purpose but to deceive us with regard to the actual constitution of Nature? What necessitated Nature to choose for this purpose two rhythms which always exactly interfere with each other, when such rhythms are so very hard to hit upon? It is true that Prof. Ebbinghaus says that this quality of rhythmicality which he assumes is merely a metaphor, and that the nature of the antagonism may be something different from this. It goes without saying that this part of any theory is merely a metaphor, but unless the metaphor is a good one there is no great use in framing the theory. It is not necessary that we should have any theory at all, but if we take the trouble to defend one, it is an absolute essential that it be one which *renders natural and plausible* the one most striking fact of colour vision. This the theories of Helmholtz and of Hering do, to perfection; it is on other grounds that they invite abandonment. But this first requirement of all, the theory which we are asked to substitute for them does not meet. On the whole, it seems to me that a theory which assigns an essential function to the visual purple while failing to take account of what is most conspicuous in its behaviour, and which furnishes no reasonable ground for the most cardinal fact of colour vision (not to mention its other difficulties), can hardly be said to have made a successful claim to acceptance.

As to a function for the visual purple, it is not impossible to conceive of one of a less fundamental character than that assigned to it by Prof. Ebbinghaus. Rabbits whose eyes have been fully bleached require thirty-three to thirty-eight minutes' exposure to darkness (p. 267) for the complete restoration of the visual purple. Does this period of time (which is without significance for Prof. Ebbinghaus) suggest any fact of colour vision? Very readily; the phenomena of faint light vision Hering has very correctly described by saying that the white light sense suffers adaptation and the colour sense does not. The time necessary for complete adaptation E. Fick found to be about half an hour. If now (as I have upon quite other grounds found reason to assume) the rods are the source of white light sensations only and the cones convey the sensations of colour, the fact that the sensitiveness to white light alone suffers adaptation is admirably accounted for; the colour changes of the visual purple

(like the movements of the pigment grains, which have similar time relations) are simply a phenomenon of adaptation. There is an additional reason for believing this. The yellow pigment of the centre of the eye causes perfectly definite errors in the colour sense. How is it possible that the visual purple (which comes and goes with every considerable change in the illumination) does not in like manner cause all the colour illusions of a purple veil now held before the eyes and now removed? The facts in the case are exactly the opposite,—blue shines out more distinctly than yellow as the light grows faint. But the visual purple exists only in the rods, and if the rods are organs of white light only, then its deceptive quality would never make itself felt. The cones, on being developed out of rods, would have dropped this means of adaptation for the sake of being able to see all colours in their true light. It is therefore very easy to assign a function to the visual purple without all the difficulties which lie in wait upon the attempt to identify it with a photochemical substance.

Prof. Ebbinghaus deduces what looks like an imposing array of "explanations" from his theory. But he does not make the distinction which I have insisted upon above, between explanations which involve deductions from a theory, and therefore serve to confirm it, and those which are merely compatible with it. All of them, so far as I can see, could perfectly well be expressed in terms of any theory which assumes a separate grey sense and a non-annihilating colour sense. Many of them involve additional *ad hoc* hypotheses,—as his accounting for the Purkinje phenomenon by supposing that while the purple substance is always present in greater quantity, the yellow substance is more readily acted upon by feeble light.

Until Prof. Ebbinghaus' theory shall have been adopted, I would suggest that the name "visual purple," which was given to the stuff in question under a mistaken hope as to its function in vision, be dropped and *rod-pigment* (since the stuff undergoes many changes of colour) be employed instead.

That (1) there is a separate white process, and that (2) complementary colour processes do not wholly destroy each other, it seems to me may now be looked upon as facts established by experiment. No theory which does not take account of them has, hereafter, any claim to acceptance. The point in colour theory which it is of the utmost importance to establish next is whether the facts, upon a critical examination, force upon us the assumption of three or of four fundamental colours. The extreme importance of the bearing of Prof. König's experiments upon this subject (to which Prof. Ebbinghaus, it seems to me, wholly fails to do justice) I hope to return to upon another occasion.

C. L. FRANKLIN.

UNREASONABLE ACTION.

It is with great satisfaction that one sees so stimulating a piece of psychological analysis as Prof. Sidgwick has given us in his article under the above title in the April number of MIND, 1893; especially as he thus turns the search-light of Psychology upon a field in which he is an acknowledged master.

The few remarks I have to make here are uttered not in a spirit of criticism, but with the hope of gaining further aid from Prof. Sidgwick's method; and I think they may well be prefaced by a brief summary of the points made by him, as, from my standpoint, they appear to be of most importance.

Prof. Sidgwick asks us to consider what is called subjectively unreasonable action, wider than, but inclusive of, strictly moral judgments.

He excludes all abnormalities that might be looked upon as leanings away from sanity, and especially eliminates all cases in which men feel that they are carried away by sudden or overwhelming impulses; and this in order to fasten our minds upon that action which is held to be voluntary and yet contrary to a man's deliberate judgment as to what is right or best for him to do.

In the first place he calls our attention, by way of emphasising the importance of the subject, to the fact that writers of the most *opposite* schools for the most part fail to discuss cases of irrational volition altogether, but where they are considered, it is found that the opposed thinkers imply, when they do not distinctly make the claim, that there is no such thing as wilful unreasonableness. This is surely a most significant fact; one which should lead us to examine with the greatest care all cases in which this questioned characteristic appears. Prof. Sidgwick indeed proceeds a great way in this direction, but, as I shall attempt to show in the sequel, not quite so far as he might do.

1. He acknowledges in the first place that cases of so-called "wilful unreasonableness" are relatively very rare indeed.

2. He shows that, in a large number of cases, where voluntary unreasonableness appears to exist the action is in reality merely action taken contrary to some general resolution which has been adopted by the agent and is to be included in one of two great classes.

A. The action involves no consciousness, at the time, of a conflict between volition and practical judgment; the rule being simply forgotten (X);—or the rule being remembered without acknowledgment that the case in mind falls under the rule (Y); or the agent suspends his rule from a temporary conviction that he has adopted it without sufficient reason (Z).

B. The action involves the consciousness of unreasonableness, *but only obscurely:* the man sophisticates himself, being obscurely

conscious of the sophistry. Here it seems to me there will be no claim that the voluntary action to which attention is directed under the terms of the discussion is itself irrational, for in all cases, as Prof. Sidgwick says, "by hook or by crook a quasi-rational conclusion on the side of Desire will be attained". For the irrational volition, if it exist, we must look back of the act which is thus made rational, to the act of self-sophistication; and this makes the case practically identical with that specially subtle case mentioned by Prof. Sidgwick where the agent consciously refrains from directing attention away from certain desired aspects.

In such cases I submit that it is possible, and, so far as my introspection tells, highly probable, that there is nothing irrational in the emphasis of certain aspects. So long as the agent has not before him any consequences in practical life as the result of allowing one series of thought to play in consciousness to the exclusion of another, there does not appear to me to be anything irrational in allowing such play, nor in fact in inducing it by an emphasis of certain aspects which are not naturally powerful: indeed one cannot object to such procedure without breaking down the argument for deliberation in general. Of course if the agent realises that he is sophisticating himself or emphasising certain aspects in a way that will lead him to recognisedly irrational action he is in this voluntarily irrational; but it is apparent that this is at best a very rare case among rare cases, and I am inclined to think that in such instances the agent does not realise this *as he does it*, but rather realises, *after the act*, that he *has done it*. He may in the next moment fall back into the doing of it, but in this case I do not think the claim that he realises the irrationality of the act can be made with any degree of probability on the side of the claimant, when we consider the enormous number of cases of apparent voluntary irrationality that Prof. Sidgwick has found no difficulty in explaining away into rationality.

3. There remains for further consideration the residuum of apparent wilful irrationality (in which class, perhaps, the last case stated is to be included), which is so very rare, but which Prof. Sidgwick thinks undeniably occurs. Unfortunately Prof. Sidgwick fails here to illustrate with examples, although his habit of making clear his position by means of vivid instances is well exemplified in the rest of his article. I feel a good deal of confidence, indeed, that he is here speaking on objective,—on other than introspective,—evidence: and it is, therefore, all the more important to examine these residua with especial care.

In doing so I must call attention to a set of cases, not mentioned by Prof. Sidgwick, the obverse in a sense of one class presented by him, and enumerated above as 2, A, Z. I refer to cases where a man having determined upon a rule of conduct or a habit of life as rational, acts in accordance with this rule,

notwithstanding the presentation of arguments unanswerable at the moment which would lead him to abrogate the rule. Here he seems very often to outsiders to act irrationally, and perhaps to himself, some moments after the act, he would judge it to have been irreconcilable with a rational judgment, but at the moment of action I feel that it will be granted that he acted with distinct rationality.

Examples are given in the lives of religious devotees who on general principles cast aside the claims of scientific argument in favour of the official dictates of their Church. Similar is the case often with the Utilitarian who fails to act in an individual instance contrary to the rules looking to the attainment of average happiness, which rules he has become convinced are proper. Another and striking instance is given in the life of the man whom we call obstinate or strong-willed, according as his action happens to be disapproved or approved by us. He surely considers that the course in which he persists is entirely rational.

Now in all such cases we have clearly an emphasis of a result due to the inhibition of action rather than the causing of action; and this is a characteristic of the residual cases of wilful irrationality to which Prof. Sidgwick himself draws attention. It is indeed highly probable, as he says (p. 187), that: "Even in the exceptional case of a man openly avowing that he is acting contrary to what he knows to be both his interest and his duty, it cannot be assumed that a clear conviction of the truth of what he is saying is necessarily present to his consciousness. For a man's words in such a case may express not a present conviction but the mere memory of a past conviction; moreover, one of the forms in which the ingenuity of self-sophistication is shown is the process of persuading oneself that a brave and manly self-identification with a vicious desire is better than a weak self-deceptive submission to it—or even than a feeble fluctuation between virtue and vice."

Now this being granted I am inclined to believe it will be found that all the cases of Prof. Sidgwick's residuum can be subsumed under those classes which have been above enumerated: if this is not true, and there are other cases which still seem to him to involve subjective appreciation of willed irrationality *at the time of the act*, I am sure that he would perform a service to Psychology and to Ethics by presenting the cases with fuller examples than he has found it best to give in the article referred to.

On the whole, therefore, it may be held, I think, as highly probable from a psychological standpoint, that all so-called cases of subjectively recognised voluntary irrational action are cases of illusion, occasioned by faulty analysis of the mental states involved, or by failure to analyse them at all.

In many cases where "pure impulse" or the influence of habit carries a man into activities contrary to his wish he dis-

tinctly feels that he *is* not responsible, because he is forced to act as he does; however much he acknowledge his responsibility for *having in the past* acted, in ways which now appear irrational, through voluntary emphasis of these impulses, or the acquiescent in the formation of these habits.

In all other cases that are analysable with any clearness it appears that whilst there is recognition of an irrationality *after* the act, there is none *at the time of* the act. The illusion would therefore appear to be due to a failure to note the difference between immediate judgments of the moment and judgments in regard to past moments; and at the same time to the unwarranted assumption so commonly made that the elements entering into a judgment in relation to a past judgment, must be the same as those which were present in making that judgment in that past. Properly speaking then, we cannot be said *to act* irrationally, although we can be said to *have* so acted. Similarly, treating the moral as a sub-class, under the rational, as Prof. Sidgwick does, we cannot truly be said *to sin* although we all surely *have sinned* and come short of our duty.

And after all it is this recognition of *having sinned* that brings the hopefulness of repentance. The cry *I am sinning*, if ever heard, is the cry of the bound soul, for whom there is no help within. The cry "*I have sinned against heaven and before Thee*" is of the very essence of personal moral regeneration.

Henry Rutgers Marshall.

VI.—CRITICAL NOTICES.

Appearance and Reality: A Metaphysical Essay. By F. H. Bradley, LL.D. Glasgow, Fellow of Merton College, Oxford. London: Swan Sonnenschein & Co. New York: Macmillan & Co. Pp. xxiv., 558.

"We may agree, perhaps," the author begins, "to understand by metaphysics an attempt to know reality as against mere appearance, or the study of first principles or ultimate truths, or again, the effort to comprehend the universe, not simply piecemeal or by fragments, but somehow as a whole" (p. 1). Of these descriptions, supposed to be equivalent, the last—spite of the title of his essay—seems to answer best to its main endeavour:—"to comprehend the universe somehow as a whole". And indeed if a good deal of stress were laid on the 'somehow' the description would not be less fair. In his preface, written presumably at the end of his work, the author quotes apologetically from his note-book a very different conception of his subject: "Metaphysics is the finding of bad reasons for what we believe upon instinct, but to find these reasons is no less an instinct" (p. xiv.). And after all there is no denying that metaphysics, like love and faith, is often a very personal affair; and especially so if it takes the form of an attempt to know reality, and to comprehend the universe as a whole. "All of us, I presume," says Mr. Bradley, "more or less, are led beyond the region of ordinary facts. Some in one way and some in others, we seem to touch and have communion with what is beyond the visible world. In various manners we find something higher, which both supports and humbles, both chastens and transports us" (p. 5). In the final sentences of his book we have the instinctive belief: "Reality is one experience, self-pervading and superior to mere relations. . . . Reality is spiritual. . . . Outside of spirit there is not, and there cannot be, any reality, and the more that anything is spiritual, so much the more is it veritably real" (p. 552). But only a few pages earlier we find him saying: "Truth, when made adequate to Reality, would be so supplemented as to have become something else—something other than truth, and something for us unattainable. . . . Our conclusion, in brief, has explained and has confirmed the irresistible impression that all is beyond us. . . . Error, in the sense of one-sided and partial truth, is necessary for our being" (p. 549). This does not sound like conviction that the instinctive belief has been established by reasons. If we start from "the region of ordinary facts" to find such "adequate" truth methodically, it seems certain that there will be no end to the way. If that truth

find us "straying beyond our daylight world," it seems equally certain that while the "transport" lasts we shall try but vainly to discover the way to return. The one attempt is like setting out to add up to infinity: the other would be like trying to get back to the finite by gradually subtracting from the infinite. We can indicate both ends of the series perfectly: 1, 2, 3, 4, . . . $\omega - 3$, $\omega - 2$, $\omega - 1$, ω. But we cannot bridge the chasm either by the direct or by the inverse procedure; and the latter involves at every step a transcendent term. Thus it is by no means a matter of indifference which of these two ways we choose. The history of philosophy affords instances enough of both. Mr. Bradley's "instinct" seems on the whole to incline him to begin —as Spinoza and Hegel, for example, began—in the clouds and darkness that veil the Absolute. But his "reasons" then will prove, I fear, to be purely formal and the inevitable "badness" to consist solely in taking them to have any material content. Still through the larger portion of his book he is content to proceed in a more empirical way, setting out sometimes from psychology, but in the main and with better results from reflexions on the organisation of knowledge.

The book is in two divisions: the first being entitled Appearance. This, which is the shorter and less interesting, is in the main critical and destructive. Some of the leading ideas "by which we try to understand the universe"—*e.g.*, Things and their qualities and relations, Space and Time, Change, Causation, Activity—are made to contradict themselves and so turn out to be appearance. For appearance "is that which, taken as it stands, proves inconsistent with itself, and for this reason cannot be *true* of the real" (p. 132). Still appearances exist and so must in some way belong to reality. Even this obvious truth is held to be disowned by the "Thing *per se*," which being therefore dismissed as "a purely irrelevant ghost" that only reduplicates our difficulties, we pass on to the second division, entitled Reality, to learn what other characters reality possesses beyond that of owning appearance. Here the author admits that he has "observed no rule of progress except to get forward in the best way" he could. His course will be apt to remind the well-nurtured reader of the voyage and shipwreck of St. Paul. The two first chapters and again the two last are occupied with the main theme—the general nature of reality; while exactly midway there is a recapitulatory chapter also devoted to it. Following on the earlier exposition, in which reality becomes the Absolute, there is first an important chapter pointing out the general way in which thought may fall within this Absolute; then four other chapters in which such hopeless appearances as error and evil, space, time, chance and mutability, and the unique particularity of the 'this' and the 'mine' are shown not to "collide with the Absolute". This brings us to the recapitulation half-way, and there the nature of the Absolute is further unfolded. After this

the author's endeavour is to show "how the main aspects of the world are all able to take a place within our Absolute". Under this head come chapters on Solipsism, Nature, Body and Soul, Goodness. There is also in this part a chapter dealing with "degrees of truth and reality"—a sort of pendant to the chapter on thought and reality in the part before. Finally, having thus defended his view of the Absolute against the more fundamental objections, the author proceeds to complete his exposition by showing that the Absolute cannot be resolved into any of the main aspects—feeling, thought, will, goodness, beauty, truth—of which it is the unity; and last of all by discussing the positive nature of this Unity itself. Leaving aside for the present the more negative and polemical chapters, let us examine the author's positive doctrine: in the light of this we shall perhaps afterwards appreciate better what is more critical and controversial.

We have, first, the nature of Reality itself and then its relation to appearances. The general nature of reality is unfolded in four propositions: (*a*) Reality is one, (*b*) is a harmonious system, (*c*) is experience, (*d*) is one Experience, individual and perfect. Though, as we have just seen, the author devotes the greater part of his book to the "grave objections," "serious difficulties" and "dangerous mistakes" with which his doctrine is beset; though in the closing chapter he speaks as if he and his readers had only "*ventured* to conclude that Reality possesses—how we do not know—the general nature we have assigned to it," because "we could discover nowhere the sign of a recalcitrant element"; yet this is the one thing about which he himself seems never to have had a misgiving.[1] How to reconcile this fundamental confidence with the thorough-going scepticism to which he frequently gives utterance[2] is a question to defer. Subject to a correction mentioned later and which is not intellectual, these statements concerning the Absolute are, it is held, themselves absolute and unconditional. Any reader familiar with the criticisms that sufficed to dissipate the Hegelian "Panlogismus" in Germany will be apt to suspect, as I have already hinted, that Mr. Bradley's absolute truths are either purely formal or *not* beyond intellectual challenge. The first two propositions he himself describes as "formal and abstract . . . an empty outline": it is in the last two that we have the "matter" which fills up this outline, "the concrete nature of the system" (p. 144). I would invite Mr. Bradley's readers to consider (1) whether the oneness of (*a*) and the system of (*b*) are not both merely logical terms improperly transferred in an ontological sense to (*d*); (2) whether real and reality used distributively or "adjectivally" are always distinguished from the Real and Reality used collectively or "substantively"; and (3) whether real = experienced is fairly converted into Reality = Experience. These suspected paralogisms may be

[1] *Cf.* pp. 3, 144, 161.

[2] *Cf.* pp. xii., 544-549.

indicated by a brief outline of what I take to be Mr. Bradley's argument, setting out from the distinction he has drawn between absolute and finite truth. "With absolute truth there is no intellectual outside. There is no competing predicate which could conceivably qualify its subject and which could come in to condition and to limit its assertion" (p. 545). What predicate can there be answering to this description? Negation, of course, we should agree with Mr. Bradley in treating as essentially relative, and yet all determination is negation. May we not conclude that with absolute truth the predicate must be merely 'is'? And what is the subject? We seem to get an answer by turning to finite truth. This is always conditional: "Any finite truth or fact may to an indefinite extent be accidental appearance. In other words, if its conditions were filled in, it, in its own proper form, might have disappeared" (p. 540). The only subject clear of conditions is then obviously the universe. To say that the Universe is, is to say what is absolutely true. Now can anything deserving the name of positive knowledge be either got out of or put into this proposition? It would be absurd, no doubt, to talk of two universes, but the denial of plurality is only tantamount to the affirmation of unity when we are dealing with the discrete. To this, whether as one or many, the continuous is opposed. Thus it may be absolutely true that the universe is, and still remain an open question whether it is an absolute unity and not an indefinite continuum. No doubt the latter alternative is cheerless enough; but Mr. Bradley seems to be more or less vaguely aware that it is there. He thus sums up on this point: "The stubborn objector seems condemned in any case to affirm the following propositions. In the first place Reality is positive, negation falling inside it. In the second place it is qualified positively by all the plurality which it embraces and subordinates. And yet itself, in the third place, is certainly not plural. Having gone so far, I myself prefer, as the least misleading course, to assert its unity" (p. 522). Spite of his preference, we may find elsewhere that he leaves himself but a very narrow escape from the opposite doctrine. Meanwhile, we have only to remark the vitality which that doctrine has shown since the dawn of speculation, and to doubt whether the assertion that Reality is an absolute unity can be regarded as itself absolute truth. But even granting that this unprescinded x is a proper unity, what does the assertion that it is a harmonious system amount to? Merely, as it seems to me, to an analysis of the logical conception 'universe,' and an application to it of the logical principles of consistency.[1] "The Reality, on one hand, is no finite existence; and, on the other hand, every predicate—no matter what—must both fall within and must qualify Reality" (p. 541). "Reality is one in this sense that it has a positive

[1] *Cf.* pp. 136-140.

nature exclusive of discord. . . . Its diversity can be diverse only so far as not to clash" (p. 140). All this is absolute truth, no doubt, provided Reality = unlimited "universe of discourse". But it is all contained in Jevons' *Logical Alphabet*, and might very well be taken for granted in an essay on metaphysics.

Experience, however, is a conception quite outside the purview of formal logic: how then does Mr. Bradley find his statement that Reality is experience to be absolutely and unconditionally true? There seem to be two steps, the first of which at any rate is logically unexceptionable. The following seems the gist of it: (1) "It is because you are sure as to some main feature of truth or reality, that you are compelled to doubt or to reject special truths which are offered you" (p. 512). But "it is impossible rationally to doubt where you have but one idea"—the said main feature, to wit. But "where you have an idea and cannot doubt, there logically you must assert" (p. 514). Now, it is clear, as has been said already, that we have no co-ordinate idea or predicate to set over against 'is' or being; and if this should turn out to be the sense in which experience is "the main feature" of reality, the point, such as it is, would be proved. And so we come to the second step. What is experience to mean? "Experience means something much the same as given and present fact. . . . I can myself conceive of nothing else than the experienced. Anything, in no sense felt or perceived, becomes to me quite unmeaning. . . . I am driven to the conclusion that for me experience is the same as reality" (p. 145). "Anything, which in any sense can be more than and beyond what we possess must still inevitably be more of the self-same kind" (p. 548). "Being, if we use the term in a restricted sense, is not positively definable. It will be the same as the most general sense of experience" (p. 243). There is then a sense in which real = experienced = "that"; and in this ("adjectival") sense we may say reality = experience = being. Verily this, as Hegel would say, is "abstract identity and sinks to the level of the empty understanding". But it does not place the spirituality of the real beyond question, which is what we want as a first step towards idealism. But, in point of fact, both reality and experience are treacherous words, especially when it turns out that reality proper is *not* the same as being proper, and *not* the same, therefore, as experience in its general sense. For being, we are told, "is different from reality, if that, again, is strictly used. Reality (proper) implies a foregone distinction of content from existence, a separation which is overcome. Being (proper), on the other hand, is immediate, and at a level below distinctions, though I have not thought it necessary always to employ these terms in a confined meaning. However, in its general sense of experience being underlies the ideas of individuality and perfection" (p. 243).

And this brings us, lastly, to ask how the position of absolute idealism, that Reality is one Experience, individual and perfect,

is found to be absolute truth. Mr. Bradley's answer, as it seems to me, is: By the ontological argument. Of this argument, he says: "It is used of the Absolute, and if confined to that, will be surely legitimate. We are, I think, bound to admit this claim. The idea of the Absolute, as an idea, is inconsistent with itself; and we find that, to complete itself, it is internally driven to take in existence. . . . And, whether you begin from the side of Existence [the cosmological argument] or of Thought, the process will remain essentially the same" (p. 396). "The principle underlying these arguments—that given one side of a connected whole, you can go from this to the other sides—is surely irrefragable" (p. 396). But the only absolute truth to be got on this principle is simply that with which we began. Whatever the universe be, we must say it is; and however contingent—externally determined—the existence of any part may be, the existence of the Whole, *ex vi termini*, can be contingent on nothing. Again, if we take the logical conception of universe it will yield us "individuality or the idea of complete system" (p. 542), as I have already suggested.[1] As to perfection, that Mr. Bradley tells us means "the identity of idea and existence, attended also by pleasure" (p. 244). With pleasure he allows the ontological argument can do nothing directly (p. 150). But he manages to bring it within the range of that argument indirectly (*cf.* p. 155). Moreover, he remarks in the closing chapter: "The Absolute, then, perhaps, strictly does not feel pleasure. But, if so, that is only because it has something in which pleasure is included." On these grounds we may fairly suppose that pleasure finds its place, and can only find its place, like everything else, within "the complete system," within that unity "which excludes what is diverse, so far only as that attempts to be anything by itself, and to maintain isolation" (p. 244). We are left then with perfection as the identity of idea and existence. This ought to mean, if it is to be worth anything in application to a Spirit, the attainment and consummation of all ideals and ends. As absolute truth, all it seems to mean is *that* identity of universe and being, to which we have so often been brought back. "There is a subject and a predicate, and there is the internal necessity, on each side, of identity with the other side" (p. 397). To sum up: in Mr. Bradley's absolute truth about the universe the matter remains absolutely indeterminate and the form is a purely logical framework. In this way, no doubt, "it does give the general type and character of all that possibly can be true or real. And the universe in this general character is known completely."

But the generality of this character will not yield without further determination such definite conceptions as Mr. Bradley, misled by the ambiguity or vagueness of his terms, fancies he finds there. Frequently, and with much frankness, he admits

[1] *Cf.* on the logical conception of system, Ueberweg, *Logik*, Theil vi.

that it is abstract; but then it is "no sundered abstraction".[1] True: it is too abstract for that. And again that "it fails to supply its own subordinate details," but still "it has a positive character". Certainly, the universe, though quite undetermined, is always positive for everybody. But is there *any* detail, when the terms are strictly used? And indeed how, we may fairly ask, could any determinate positive knowledge deserving the name of absolute truth co-exist along with any finite truth at all? It is a common belief that if we could secure a morsel of such unconditional knowledge the whole lump of finite truth must needs be leavened by it. Finite truth must be partial, but how can absolute truth be so? The only way of avoiding the anomaly of finite experience consisting partly of absolute knowledge and partly of relative is to assume that the absolute knowledge is form simply, and to that result these arguments of Mr. Bradley's seem to reduce themselves.

But Mr. Bradley has other and distinct lines of argument which rest more or less on a common basis of psychological fact. The conception so obtained is certainly concrete, but it is withal very obscure, the reasoning seems to be largely analogical, and the facts at the bottom of it far from certain. First as to these, or, to be more exact, as to Mr. Bradley's psychology:—At its beginning our psychical existence is wholly, and to the end it is partly, "mere feeling or immediate presentation": so far it is direct experience, in itself momentary and indescribable, the experience of a whole, diverse and changing but not parted by relations. The pre-relational stage of this unity "gives way before inner unrest and outer impact in one. And then self and Ego on one side are produced by this development, and, on the other side, appear other selves and the world and God" (p. 525). But the felt background still persists even at this higher level: one mode lapsing into another in such a way that our experience is always founded and grounded in feelings of unity. In fact, all will and thought, in the sense in which we know them, are developed from this basis of direct experience, and it is from it and on it that thought constructs a more or less precarious edifice of "indirect experience" (*cf.* p. 248). But though will and thought are developed from this basis, they never quite absorb it: it is and must ever remain distinct from them. "In other words, will and thought throughout depend on what is not essentially either, and without these psychical elements that remain external, their processes would cease. There is, in brief, a common substance with common laws;[2] and of this material will and thought are one-sided applications. Far from exhausting this life, they are contained within it as subordinate functions. They are included in it as dependent and partial developments" (p. 479).

[1] *Cf.* pp. 546, 551.

[2] These laws appear to be the laws of Association and Blending. *Cf.* pp. 479, 481.

It will be seen that Mr. Bradley's psychology is presentational in the extreme, but we are now concerned only with its bearing on his metaphysics. The important points are the supposed unity of feeling and its connexion with the relational consciousness, and next the bearing of both on the Absolute. It is from the experience of unity below relations that we "rise to the idea of a superior unity above them. Thus we can attach a full and positive meaning to the statement that Reality is one" (p. 522). Now how "this vague state," "this indiscriminate totality, inconsistent and unstable," can suggest anything but what it is—continuous change—is past my comprehension. Mr. Bradley allows himself to use the term "finite centre of experience" in connexion with it, thereby implying a definite area that is occupied and beyond that excludes and is excluded. But such language is entirely without justification till the higher and relational stage has begun. A "common substance with common laws," a psychical protoplasm reminding one of the *Globigerina* ooze of the Challenger days, may develop all sorts of things: self and the world may "emerge" from or be constructed of it; like Tyndall's matter it may be "the promise and potency of every form and quality of life"; but all the oneness it has is the oneness of the utterly indeterminate: it is being that refuses to be known. And indeed the author is himself at great pains to maintain this. "What I repudiate is the separation of feeling from the felt, or the division—I might add—of anything from anything else. . . . Being and reality are, in brief, one thing with sentience: they can neither be opposed to, nor even, in the end, distinguished from, it" (p. 146). On the whole, we seem to find Mr. Bradley here at precisely the opposite pole to that at which we left him when on "the high *priori* road". Then his Absolute seemed to have the emptiness of extreme formality, now it seems to have the formlessness of brute being. Reality with a capital R is above relations, reality without is below them; and appearances, with which thought and the relational consciousness have to deal, stretch out through endless degrees between them, emerging from the one and absorbed by the other.

But now when we turn to the chapter treating of "the Absolute and its appearances" (ch. xxvi.), we come upon differences of exposition, which, however puzzling, are also comforting—to the Absolute at all events. The relative does not return into the Absolute, as it preceded from the "pre-relational". There is something better in store than a metaphysical mirage, in which the undetermined below is simply inverted overhead. In this chapter, the author tells us, we are "to deal with the appearances of the absolute mainly from their psychical side," but a "full psychological discussion is impossible and hardly required". Still all the leading phases of psychical life and their mutual implications are, in fact, pretty fully discussed, and the reader may expect he is going to be shown how finite experience is

related to the absolute experience. But though feeling, thought and will are expounded in the first instance as psychical modes or functions, they become 'aspects,' 'attitudes,' 'regions,' 'provinces,' 'subject-systems' of the universe, when the exposition is applied to the Absolute. Moreover, the application intended for this psychological disquisition casts its shadow before, and statements are made which imply that mind instead of being an organic unity is some sort of logical *summum genus.* The main aspects of experience are the theoretic, the practical, the æsthetic, the aspect of pleasure and pain, and finally, that of feeling. "These factors," says the author, ". . . are not subordinate the one to the other, and in relation to the Absolute they are all alike essential and necessary. . . . None has supremacy. There is not one mode to which the others belong as its adjectives or into which they can be resolved. And how these various modes can come together into a single unity must remain unintelligible" (p. 457). Now what relevance have statements like these to the psychical side of experience, to the life of the self-conscious individual, for instance? How can we talk of life if there is no supremacy and no subordination, or if its unity is to result from "factors" *coming together* for the purpose? It is perplexing, too, to be told within a few pages of this, that the theoretical, the practical and the æsthetic aspects of things are a one-sided and special growth from feeling, which still remains in the background as the unity of these differences, the ground and foundation of further developments (*cf.* pp. 467, 479). And if the unity of the Absolute be indeed unintelligible from the psychical side, what are we to make of the author's earlier statements as to the sources of our knowledge of it? For we have been told that the unity of feeling just mentioned "serves to suggest to us the general idea of a total experience, where will and thought and feeling may all once more be one"; and that from this felt unity, together with its developments, "we gain the knowledge of a unity which transcends and yet contains every manifold appearance," so that "we know what is meant by an experience which embraces all divisions and yet somehow possesses the direct nature of feeling". "We can form," continues Mr. Bradley, "the general idea of an absolute intuition, in which phenomenal distinctions are merged, a whole becomes immediate at a higher stage without losing any richness" (p. 160). But if we are to be serious with this idea, then obviously it is unintelligible how modes, which are by definition marks of finite experiences, can become a unity in the Experience. The Absolute suffers no division of idea from existence, but it is of the essence of feeling, according to Mr. Bradley, that these should diverge, and "the theoretical, the practical and the æsthetic aspects of things are attempts to work out and make good this divergence". In the Absolute, we are told that no *content* is lost; but content there is neither thought, nor willed, nor felt (*cf.* p. 182). If the

immediacy of finite experience furnishes an imperfect suggestion of the Absolute Unity, then surely the way to an exacter conception is by removing, as far as may be, the marks of finitude, which are not content at all, unless impotence and contradiction be content.[1] "There is no objection against the disappearance of limited transparencies in an all-embracing clearness," but then with them "all windows disappear" (p. 253 f.).

The fact is there must be some difference, though it be only one of relation to different standpoints between "aspects" of things and "factors" of psychical life, and this difference is continually eluding Mr. Bradley, and sometimes, I fear, deluding him too. Content seems on the whole his most fundamental conception. But this 'content' has very various states: in appearance we have it fragmentarily: in the universe we have it as a whole: in feeling we have it diverging from existence: in thought this alienation is complete, and in the Absolute content and existence are identical once more. But now both unity and identity are relations, when all is said and done; and the point is that they are different relations, and to this Mr. Bradley has not always attended. For instance, in the excellent chapter on Body and Soul he remarks: "There would be no meaning in sameness, unless it were the identity of differences, the unity of elements which it holds together, but must not confound". But the differences with which identity deals are not the elements with which unity deals: identity pertains more to thought, unity more to things. Identity is opposed to diversity, unity to parts. And where unity is more than a sum of parts, where it is a system or an organic whole, there we have an individual. Such a whole Mr. Bradley believes the universe to be, and the Absolute is the identity of this whole with reality. Now what are the "differences" in this identity—in other words, what meaning has reality here? If we had but the one idea, universe, we should have, as Mr. Bradley has told us, to affirm it. But this makes reality = mere being and comes to nothing. Take Reality as Experience, and say the Absolute is the identity of the universe and experience, and you have meaning enough, but then that meaning gives rise to a problem. Of this problem, such a conception as "absolute intuition" or "absolute self-fruition" may be a speculatively valid solution; and apart from unimportant variations, it is certainly one of the oldest and possibly it is the best. At any rate it has commended itself to Mr. Bradley; the only puzzle indeed is to see how his doctrines concerning appearances and finite centres of experience are consistent with it.

The supposition we are first tempted to make is that the universe itself is taken to be a system of finite centres which are severally, but in varying degrees, appearances to each other. We should then have finite centres—or better surely, relative centres—contrasting

[1] *Cf.* ch. xix., On the This and the Mine, pp. 233 ff.

with the Absolute (or infinite) centre; and we should have appearances, as parts "loosed from the whole" and necessarily relative to other parts outside, contrasting with the whole which is self-contained (*cf.* p. 486). Appearances would then be, as it were, contingent aspects of the one universe pertaining solely to finite experience, and they could not conceivably pertain to any other. Finite spirits, on the other hand, would be the content of the absolute Spirit; but its intuition of them would not be their thoughts of each other—at any rate, to adopt Mr. Bradley's phraseology, it would not be their thoughts *as such; i.e.*, as content loosed from existence. To all finite centres, it will be remembered, there pertains a felt reality; and *that is not appearance.* "Now the Reality, to which all content in the end must belong, is a direct all-embracing experience. This Reality is present in, and is my feeling. . . . My 'mine' becomes a feature in the great 'mine' which includes all 'mines'" (p. 253). Appearances then, which are never strictly real, would become the affair of finite experiences *inter se;* while finite centres as a "living system" would be the content of the one Experience, self-pervading and superior to mere relations. On this view we might say, "God is not himself unless I also am" (p. 450). The reality of finite experiences, in other words, would be as necessary and ultimate as that of the absolute Experience, the two being identical. But appearances—especially from Mr. Bradley's account of them, as not only fragmentary but false—might fairly be called inexplicable as well as contingent. Not so, however: the position is precisely reversed. It is experience as taking place in finite centres that is held to be inexplicable (p. 226), while "the Reality itself is nothing at all apart from appearances" (p. 551). Even this we could understand if appearance might be taken in the sense of content merely, which, though in itself ideality, is yet reality in the absolute intuition. And there are indications of this view of appearance.[1] Moreover, it would be quite consonant with such a view to say that "we do not know why or how the absolute divides itself into centres"—in other words, why or how God made the world—questions with which thorough-going rationalists usually feel competent to deal. But, unfortunately, even this interpretation will not do; for Mr. Bradley not only tells us that "the Reality itself is nothing at all apart from appearances," but he goes on to add: "Reality appears in its appearances, and *they are its revelation; and otherwise they also could be nothing whatever*" (p. 551). In the face of this, to call the fact of finite centres inexplicable, looks like "an unconscious pleasantry". And yet, no doubt, they are in-

[1] *Cf.* especially pp. 485, 486. Here it is admitted (i.) "that some appearances really do not appear"; (ii.) that it is not suggested "that the thing always itself is an appearance," though by "licence" called so; but (iii.) that what is meant is that "its character is such that it becomes one, as soon as we judge of it".

explicable, in the sense in which existence at all whether revealing or revealed is so. But surely the one carries the other.

But there is one important feature of Mr. Bradley's philosophy still remaining, in which the psychological plays a part —I refer to the process, if we may so say, from pure being through appearances to Reality or from immediate experience through indirect experience to absolute Experience, or from feeling through relational consciousness to absolute intuition. However described the process seems substantially one. It begins, as we have seen, below relations and it ends above them: at the outset content and existence are one; and again at the end. "In the middle space" there is a hopeless dualism between the two. I say hopeless, because, once content is divorced from being, a struggle towards reunion begins and the only alternatives are either "the infinite process[1] or destruction.[2] The case of feeling or the 'this-mine' is even more tragic, for though it *is* what thought only becomes by perishing, yet it has no alternative but 'suicide'" (p. 236). For "its elements are but conjoined and are not connected. And its content, hence, is unstable and essentially tends to disruption, and by its own nature must pass beyond the being of the mere 'this'" (p. 225). But why should this "one source of our experience, through which every element of the world must submit to pass," be thus unstable? And if it is but a chaos of mere "conjunctions" how does it ever begin the "connecting" process? Leaving these weighty problems aside let us see how the said process ends. What is "the final destiny and last truth of things"? Some might have supposed that at least "finite centres are maintained and respected". But no: far otherwise. "We have a re-arrangement not merely of things but of their internal elements. We have an all-pervasive transfusion with a re-blending of all material. And we can hardly say that the absolute consists of finite things when the things, as such, are there transmuted and have lost their individual natures" (p. 529). Now, since in this Absolute there is to be neither process nor progress, we can but suppose all this *re*-arrangement or *re*-blending, *as such*,[3] is pure

[1] "In order to understand we are forced to distinguish without end; for we never get to that which is apart from further distinction. . . . We can neither take the terms with their relations as a whole that is self-evident, that stands by itself and that calls for no further account; nor, on the other side, when we disting ish, can we avoid the endless search for the relation between the relation and its terms" (p. 178).

[2] "There is nothing foreign that thought wants in desiring to be a whole. . . . But, on the other hand, such a completion . . . would prove destructive. . . . It would bring the ideal content into a form which would *be* reality itself, and where mere truth and mere thought would certainly perish" (p. 181).

[3] Mr. Bradley's "as such" is a fair parallel to the *quatenus* of Spinoza, "the magic word" which has been regarded as the key to his system.

illusion. It must be how the Absolute appears from the standpoint of the finite, not what the Absolute is in itself. For that surely is round and fixed as the sun, while these can be but broken lights on a restless phantom-sea. With the Absolute A and Ω are one and the same: what verily is, is always.

But having got the universe safe under a single formula, evolution, there is but one appearance left to dispose of, that of time and change. The problem is worth trying: one more, suicide, and all will be done. Now it is most inconsistent, but still, as a fact, "change desires to pass beyond simple change. It seeks to become a change which is somehow consistent with permanence. Thus, in asserting itself, time tries to commit suicide as itself, to transcend its own character, and to be taken up in what is higher" (p. 207). Time, like all other "aspects," must of necessity get "blended and lose its special character". Once again we seem forced to observe in parenthesis that from the point of view of the Absolute it is impossible to see what the separation that occasions this re-blending can be made to mean. Still it seems to have arisen, and must, we suppose, seem to cease. And with this solution we ought, if we are wise, to rest content, for "we can know neither how time comes to appear, nor in what particular way its appearance is transcended" (p. 210). However, Mr. Bradley adds some remarks intended to make the acceptance of this solution easier, and "to weaken our belief in time's solidity"; but he is careful to preface them with the warning that "the attempt is illusory". First he proposes a scheme of various time-series, in which—though the direction of each series "may be relative to itself, and may have, as such, no meaning outside"—pairs of series run counter, the one to the other, like the up and down trains on the Great Western and the Great Northern Railways. "On such a scheme," says Mr. Bradley, "if you consider the contents you may suppose the whole to be stationary. It contains partial views, but as a whole it may be regarded as free from change and succession. The change will fall in the perception of the different series. And the diverse directions of these series will, as such, not exist for the whole" (p. 216). In brief, by way of divesting time of a "solidity" fatal to its desire to melt, Mr. Bradley fastens upon the figurative use of a line to represent time order, and produces a sort of Herbartian expanse out of such lines regarded as axes. Time, that is to say, instead of simply losing itself in the Absolute, is there manifolded indefinitely, on the principle that $+a$ and $-a$, while geometrically opposed as directions, yield zero as quantity if algebraically summed. "So we glide into the doctrine that partial changes are no change, but counterbalance one another within a whole which persists unaltered" (p. 220). This is sound dynamics. No system can accelerate itself: the centre of equilibrium of the Universe (if it have one) is either at rest or it moves uniformly in a straight line: either way there is no change.

In other words, from the point of view of conscious life and evolution, the *omnitudo realitatis* is an algebraic sum that is always zero—a perpetual rest which, to finite experiences, that are themselves unstable, must seem to be the outcome of perpetual motions perpetually "counterbalanced".

All *this* "barren self-deception" to avoid that "muddy refuge for the troubled in philosophy—the pre-eminence of will"! The bare mention of anything implying activity seems always to exasperate Mr. Bradley, and he becomes at once curt and contemptuous. The psychology that has a word to say for such conceptions is dubbed "fraudulent" and "preposterous"; as blindly silly as a man in love. Activity is a conception which he claims to have "literally riddled with contradictions": so far from explaining the universe, "it cannot bear its own weight or endure for one moment the most superficial scrutiny" (p. 115). "In short, an appeal to will, either in metaphysics or in psychology, is an uncritical attempt to play with the unknown" (p. 483). For what Mr. Bradley calls "sane psychology, will must presuppose, and must rest on, junctions physical and psychical, junctions which certainly are not will" and never become so. "Will, in brief, is based on associations, psychical and physical at once, or, again, upon mere physiological connexions" (p. 481). So then all the seeming changes of the world are but events, not acts: actions in the mechanical sense, if you like, since each has somewhere its counterbalancing reaction; but not deeds, the results of device, the fiats of an approving spirit. And yet it is certain Mr. Bradley does not intend this either. For "the barely mechanical" is with him but "a fabled extreme," at the very lowest degree of reality; while he mentions "the realised and solid moral will" as an emphatic instance of what cannot "either be quite real as it exists in time or can quite appear in its own essential character". Again, in the chapter on Goodness—perhaps the ablest in the book—he says: "The intensity of a volitional identification with whatever seems best appears to contain and to exhaust the strict essence of goodness. On this alone are based moral responsibility and desert, and on this, perhaps, we are enabled to build our one hope of immortality" (p. 432). From such passages we may gather that if with Mr. Bradley finite spirit, like everything finite, is but appearance, it is an appearance so much "nearer the central heart of things" that it can only "enter into the series of space or of time with a show which in various ways contradicts its essence" (*cf.* pp. 381, 382). On the whole, the reader of this book must expect to have some trouble in finding a clear or coherent view as to the mutual relations of the universe and the Absolute, finite spirits and phenomena.

I have left myself but very little space for remark on what might be called—in distinction from the more ontological or psychological—the epistemological strand in Mr. Bradley's

argument. The incurable defect of our thought is that it is relational. For relations are invariably "infected" with contradiction, till the relations and the relata are the adjectives of one whole; and then, if that whole is the absolute whole, we pass entirely beyond the relational point of view. But if it is not, it is not really a whole at all; "it has always edges which are ragged in such a way as to imply another existence from which it has been torn, and without which it really does not exist. Thus the content of the subject strives, we may say, unsuccessfully towards an all-inclusive whole" (p. 177). And so "no finite fact or truth is ever really self-supported and independent. They are all conditioned, and in the end conditioned all by the unknown. And the extent to which they are so conditioned, again is uncertain. But this means, that any finite truth or fact may to an indefinite extent be accidental appearance. . . . It might be modified and transformed beyond that point at which it could be said, to any extent, to retain its own nature" (p. 540). In fact, by the end of his third chapter, Mr. Bradley expects his reader "will have seen that our experience, where relational, is not true; and will have condemned, almost without a hearing, the great mass of phenomena" (p. 34). Why this hopeless and sweeping scepticism should be qualified by an 'almost,' and by the limit of solitary exceptions to the condemned mass, it is not easy to see. At all events the world of mathematical truth is not among the exceptions. Certainly for some purposes we are able, as we may say, to proceed *a priori* by means of these and other abstractions. But "no abstraction (whatever its origin) is in the end defensible. For they are none of them quite true, and with each the amount of possible error must remain unknown. The truth asserted is not and cannot be taken as real by itself" (p. 540). And for this reason "even absolute truth in the end seems thus to turn out erroneous". To be sure it stands in one respect aloof from all truth beside: "it is not *intellectually* corrigible. . . . Absolute truth is corrected only by passing outside the intellect. It is modified only by taking in the remaining aspects of experience. But in this passage the proper nature of truth is, of course, transformed and perishes" (p. 545).

Surely in all this there is something quixotic. You cannot know the truth about anything without becoming everything, and you will be past *knowing* it then. The very essence of knowledge, that it is thought and not thing, is treated as its radical defect. Truth cannot give reality "bodily"—that is certain; but what right have we ever to say that "it professes to give it bodily"? If, "in the proper sense of thought, thought and fact are not the same," surely it is enough that thought should *be* thought without hounding it on to a "happy suicide" by taunting it with being *false* thought as long as it remains thought at all. A doctrine that finds no truth entirely true because thought is but one aspect of experience, may be safely said to be its own refutation.

Especially when every other aspect in turn is similarly handled; for goodness and beauty equally come short and are found "infected" with relativity and contradiction. And in what sense can a system be perfect, harmonious and complete, when every constituent is not only partial but defective?

But when he comes to discuss "degrees of truth and reality," Mr. Bradley releases us from the hopelessness and fruitlessness of this fundamental position by an unconscious substitution of something really very different in its stead. *Now*—in place of the doctrine that the genuine subject of every judgment is a fragment of reality, whose ragged edges only become definite when it explicitly realises the universe that it always implies, is an 'other,' which the predicate follows like an asymptote till both are merged in infinity—we find there are "*higher appearances*" in which "we soon transcend this unnatural divorce between principle and fact," and meet with individuals with laws of their own and laying "claim to harmonious and self-included reality". In place of relations being stigmatised as "indefensible makeshifts," we find that the more we have of relations the more we have of truth and reality (*cf.* pp. 371 ff.). Substitute validity for truth and our judgments may once again begin to look respectable. Now by 'validity' Mr. Bradley does not "simply mean that, for working purposes, our judgments are admissible and will pass. I mean," he says, "that less or more they actually possess the character and type of absolute truth and reality." But, unhappily, when we ask how we are to estimate this "less or more," new perplexities arise. "Our standard," the author tells us, "is Reality in the form of self-existence. . . . You may measure the reality of anything by the relative amount of transformation, which would follow if its defects were made good. The more an appearance, in being corrected, is transmuted and destroyed, the less reality can such an appearance contain." If these words were addressed to the all-absorbing, all-transmuting Absolute, they might have some meaning; but how finite spirits are to use absolute Reality as a measure of relative realities, or can test their thoughts and perceptions "by predicating these fragments, as such, of the Universe," Mr. Bradley somehow does not explain! The doctrine that all-inclusiveness and self-consistency are in the end our only available criteria of truth, is, I should say, quite true but not altogether new. But the reference must always be to the finite stock of knowledge that we have, not to an infinite completed Whole that we certainly have not and never can have. Still the doctrine that the finite actually possesses the character and type of absolute truth in any degree, and possesses it more the more it is harmonious and systematic—terms which surely imply relations—seems incompatible with the utter illusoriness and contradiction of everything relational maintained by Mr. Bradley elsewhere; and incompatible, too, with the almost unmeaning statement that "we are compelled to believe in a Whole

qualified, and *qualified non-relationally*, by every fraction of experience" (p. 530). The one doctrine is a levelling up that enhances the Absolute, the other is a levelling down that extinguishes the Relative. It is mistaken impartiality to attempt both.

These remarks can hardly be called laudatory, and yet there is much in the book too good to praise. So long as he is concerned to make the reader "aware of and to doubt all preconceptions" Mr. Bradley is unequalled. If all his readers with an "English mind" get as much of this "discipline" from the book as the present writer has done, then the author's ambition should be satisfied. And indeed it must seem presumptuous that one who is so much a learner and a novice should venture to sit in judgment on the deliverances of such a master in dialectic. But, in truth, such faults as I have tried to indicate will, I expect, be only too evident to most of Mr. Bradley's readers: they are the almost inevitable counterpart of his excellences. Like the bird of Minerva, who can see a mouse by twilight but is blind to a landscape at noonday, Mr. Bradley's subtlety and acuteness stand in the way of constructive breadth. He demolishes in his first part the very tools he has to use in his second and in the chapter on Things-in-themselves refutes himself by anticipation. He is Herbart and Hegel, Leibniz and Spinoza, Fechner and Feuerbach, all by turns. The one great thinker with whom he seems never really in touch is Kant; for he has perpetrated *il gran viltate* of bowing to the primacy of practical reason. It is said that we in England are threatened with an Hegelian invasion: if we are, Mr. Bradley seems marked out to lead the Hegelian left.

JAMES WARD.

The Principles of Ethics. By HERBERT SPENCER. Vol. ii. London: Williams & Norgate, 1893. Pp. xii., 487.

Besides the part dealing with Justice, which has been noticed in MIND, N.S., No. 1, this volume contains two new parts, v. and vi., dealing with "the ethics of social life," which Mr. Spencer has completed within very short time after the appearance of the last instalment of the work. In part iv., it will be remembered, the author had stated and sought to prove in detail a formula of justice, the formula of freedom limited by the claim of others to equal freedom, and he had insisted once more on the necessity of confining state-action to preventing aggressions on freedom so limited. But justice thus defined does not exhaust the whole of moral conduct. Besides justice the perfect life of society requires beneficence; without which much suffering would accrue to individuals, and "private interests would suffer from the absence of attention to public interests". But these two kinds of altruism, the altruism of justice and the altruism of beneficence, are to be strictly distinguished. Mr. Spencer urges that the changes now

in progress are submerging this well-founded distinction. Justice is "needful for social equilibrium and therefore of public concern," beneficence "is not needful for social equilibrium and therefore only of private concern". Justice is the primary law that conduct shall bear its consequences, as limited by the needs of the associated state. Beneficence is the secondary law which "if exercised by society in its corporate capacity must consist in taking away from some persons part of the products of their activities to give to other persons whose activities have not brought them a sufficiency," and must, therefore, infringe the primary law of justice. So enforced, it discourages the industrious, it lowers the standard of the race, and it leads through discontent with inequality to communism and even anarchism. As a matter for individuals it has its due place, and it falls into two divisions, which are almost sufficiently described by their names of Negative and Positive Beneficence. The first means "a passivity in deed or word at times when egoistic advantage or pleasure might be gained by action"; the second means positive sacrifice of something for the benefit of others.

These two kinds of beneficence are then dealt with in detail; but little of the discussion can be handled in a notice like the present. A great part is occupied with familiar topics, which demand both courage and a certain *naiveté* in the writer who is to render them interesting. Mr. Spencer is deficient in neither of these qualities, and here, as usual, he displays his gift of combining brevity with acuteness, not unenlivened by outbreaks of his own personality. The chapters in part v. on Restraints on displays of ability, Restraints on blame, and on praise, and those in part vi. on Marital, Parental, and Filial Beneficence, and on Pecuniary aid to relations and friends, may be taken in illustration of these remarks. Perhaps the most interesting chapters are those which deal with various points in what it is now the fashion to call the social problem; though the practical value of some of the discussions is questionable. In part v. Mr. Spencer discusses restraints on free competition, and on free contract, inveighing, as usual, against any attempt to use the collective action of the state, but explaining the grounds on which the demands of bare justice may be relaxed or waived or mitigated. In part vi. he discusses the questions of poor-relief, and of "political beneficence". He declares both against state relief to the poor, and against that afforded by semi-public organisations; and his dislike extends even to hospitals, mainly on the grounds that they tend to pauperise, and that the advantages they offer are abused by the well-to-do. (Mr. Spencer makes the startling statement (p. 385) that "people of several hundreds a year, even up to a thousand, apply as out-patients, going in disguise". On how many cases is this statement founded?) For mitigation of poverty he looks to a restoration of something like the old relations between rich and poor, before the present industrial system set in,

only without the old feeling of dependence—the richer person tending those who stand more immediately in connexion with him. Under the head of political beneficence Mr. Spencer enforces the duty of independence, which means the breaking up of party-legislation, and the replacing of our present system of party Cabinets by that of a permanent Ministry which shall submit its plans to the judgment of Parliament and proceed with them or not according to the decision of that body.

Though the two new parts contain comparatively little in the way of ethical principle, they raise several considerations of importance. Taking part iii. ("On the Ethics of Individual Life") along with vol. ii. as a systematic account of morality, we may notice that morality is not here divided in the older fashion under the heads of virtues, but is grouped according to the various relations of life into which individuals enter. We have a classification of the different kinds of conduct required, according as a person is a mere individual, a father, son, citizen, employer or the like. It is in fact what is called a classification by institutions, if a word so vague may be used. Of omissions, the most serious is the conduct required in respect of artistic or scientific pursuits. Other omissions, such as the conduct of the soldier, are due to the "absolute" or ideal character of the morals which are contemplated. Courage, except as against natural dangers, or as required for helping others, is a part of that military system which is destined to pass away.

The most interesting and difficult question raised by Mr. Spencer's new work relates to his differentiation of Justice and Beneficence. In chapter viii. of part v. he points out how the ultimate justification of negative (and the same applies to positive) beneficence is to be found in its conduciveness to maintenance of the species or to increase of happiness. These two criteria are still left side by side, and it is implied that happiness is the superior criterion; yet no difficulty need arise from their identification, owing to the biological inseparability of pleasure and life-maintaining activities. But insisting as he does on the intuitive character of the law of justice, the law of equal freedom. Mr. Spencer admits (part iv., chap. vii.) that its ultimate justification also is to be found in the same criterion. If, then, justice and beneficence have the same basis, why should it be palpably wrong for the state to ordain beneficence for the public good, seeing that it ordains justice for the public good? There is a converse consideration. Beneficence is to be a matter of private concern, unenforced by corporate action. But Mr. Spencer does not avow that such action is indifferent. If it is morally right, failure to perform it is morally wrong and is visited with disapprobation. What, then, is the difference in principle between the enforcement of justice by the state and the enforcement of beneficence by public approbation and disapprobation? Take one of Mr. Spencer's own instances, the duty which beneficence

may present to employers, of not taking advantage of a great demand for employment on the part of labourers, in order to lower wages. Suppose that public sentiment is so strongly in favour of this act of beneficence (as it may well be and has been in the past) as to amount practically to compulsion. What is there to distinguish this in principle from the ordinary operation of state interference?

In a notice of one of the previous portions of Mr. Spencer's work, I ventured to say that many persons found a difficulty in reconciling Mr. Spencer's way of applying biological principles to ethics with the practice of beneficence, and I still think that they will feel this difficulty. Their difficulty arises thus: If the primary law is that the superior should have the advantage of his superiority, and the inferior the disadvantage of his inferiority, why is it right that this law should be overridden? The answer is, and rightly, the public advantage. But if the public advantage makes this demand, why should it be unjust to relieve the inferior by corporate action? Nor, again, is it easy to see why justice should be necessary for the social equilibrium and beneficence be unnecessary. It is a strange conception of social equilibrium which leaves out of account some of the forces concerned, and what forces can be stronger than the sentiments of those who rebel against being left to the full operation of their inferiority?

No one can deny that Mr. Spencer has presented a powerful case for the limitation of corporate action to the preservation of what he calls justice; to preventing the aggression of individuals upon the equal freedom of others. This second volume may be understood as an attempt to mark off the province of government from that of private action. But if his case is to be proved he must show that this limitation is required by public advantage. But instead of this, while, of course, admitting this ultimate canon, he has laid down a principle of justice which is thought to mark off justice in principle from beneficence. There is no need to subject the part on justice to further critical review here. Yet the contrast with the treatment of beneficence induces me to offer a few remarks. The primary law of justice is 'that actions should be left to carry their consequences'. We may all agree that this is fundamental. But it becomes a principle of right only when acknowledged. And it is admittedly limited by the necessities of the associated state—the law of equal freedom. Why should it not be limited further? Mr. Spencer answers practically that the law of equal freedom is a law which distinguishes one whole mass of conduct fundamental to the state from all the rest. Yet the proofs of this law are not convincing. The biological evidence, drawn, *e.g.*, from the case of the rogue-elephant or from the punishment of a thieving rook, does not prove any law of equal freedom, but only that a violation of the habits of the group is punished. The chorus in Mr. Courthope's *Paradise of Birds*, which attributes human institutions to the birds, though not quite

accurate, has a better sense of the lesson to be drawn from the rooks. "When they build, if one steal, so great is their zeal for justice, that all at a pinch, without legal test, will demolish his nest, and hence is the trial by Lynch." In this sense of justice the most far-reaching and engrossing enactments of state would be just: their violation would bring punishment. But for justice in the important sense of the right distribution of activities so far as required by law, the analogy is without value. That the law of equal freedom is the law of justice, in this sense, Mr. Spencer does not appear to have established, and hence his restriction of the action of the state on this ground is without sufficient support. The difficulties of deducing actual rights from the formula are very great. Mr. Spencer himself sees that freedom of mutual aggression would satisfy the formula, and it is not open to him to urge that his formula is not intended to apply to aggression, for how can he know general liberty to murder to be a liberty to commit aggression unless he knows already that there is a right to life? Indeed, many of Mr. Spencer's deductions of right from the law of equal freedom seem open to the objection brought against Kant's deductions from the categorical imperative, that the deduction was convincing only on the presupposition that the conduct was already allowed to possess moral value. What seems to result from his argument is that in certain cases, such as physical integrity and liberty of locomotion, restrictions have been gradually removed, as the public advantage has been found in leaving perfect freedom to the individual, while in other cases justice has determined how much of his powers each individual may exercise with advantage to society, or compatibly with the equilibrium of society.

There seems no reason in principle why this process should not continue. I do not assert that it is an advantage to society that it should continue indefinitely, but I urge only that if we are to separate state action from private action it must be on considerations of advantage and not on the ground of such a law as Mr. Spencer's. It is not enough to answer that the state is only concerned to interfere when there is aggression of individuals upon one another. For nothing is easier than to represent "philanthropic legislation," say a Factory Act, or an Employers' Liability Act, or an Eight Hours Act, as preventing aggression. A workman may say: "I wish to work only eight hours, I have powers of enjoyment which I can gratify—I cannot gratify them if you make me work ten hours—you are committing an aggression on my liberty of enjoyment". Everything depends on the feeling of individuals about what opportunities they are, I do not say, entitled, but determined, to have. That is their conception of liberty. A law of equal freedom would be the formula of justice regarded only as protecting them in this liberty. As sentiments change, liberty in any concrete sense changes its meaning too. (Mr. Spencer himself points out how the softening of men's conduct towards women

is due less to any consciousness of its propriety than to an insensible change of character, p. 336.) What appears to be prevailing in our time is a growing protest against the disadvantages produced by the circumstances of society. The aim of much of our present legislation is not, as Mr. Spencer supposes, to save people from the consequences of their actions, to put the inferior and the superior on the same level; but to secure to the inferior equality of opportunity. I am sure that in many of the cases discussed by Mr. Spencer, to secure the individual by a right is both a manlier and a more satisfactory arrangement than to leave him dependent on the good feeling which prompts others to render him services which he cannot accept without a sense of inferiority.

S. Alexander.

L'Année Philosophique publiée sous la direction de F. Pillon. Treizième Année—1892. Paris: Félix Alcan. Pp. 324.

L'Année Philosophique for 1892 contains three principal articles, and a review of all philosophical literature published in French during that year. The articles are: (1) "A Criticism of Schopenhauer and the Metaphysics of Pessimism," by M. Renouvier; (2) "An Essay on the Nature of Emotion," by M. Dauriac; (3) "A History of the Evolution of Idealism," by the editor, M. Pillon.

M. Renouvier observes that the problem of evil is fundamental in philosophy and religion, and that this has been recognised in Asia, but in Europe very insufficiently. The prevailing spirit of the classic ages was optimistic, and the same is true of modern philosophy from Leibnitz to Spencer. Schopenhauer has the merit of drawing attention to the fact of human misery; though the subsequent growth of Pessimism is due less to his influence than to the theory of natural selection based upon the struggle for existence, and to the recent disappointing growth of international antipathies after a period of peace and the promise of goodwill.

The essay then sketches the broad outlines of Schopenhauer's doctrine, and compares it in a most interesting manner with others that figure in history, with that of Heracleitus and the Stoics, with Neoplatonism, with the system of Spinoza and with Christianity. In relation to Christianity, it may be regarded as a sort of Gnostic heresy: the world which manifests the Will resembles the Word or conscious Reason which proceeds from the Father; but the Will in attaining to consciousness is not well-pleased: again, the Word, having become man, sacrifices itself for the sake of humanity; and similarly the Will on becoming fully conscious in man also sacrifices itself, but only to annihilate life, not to restore its ideal.

M. Renouvier notices, of course, the chief failures of Schopenhauer's philosophy. The treatment of pleasure as entirely negative and dependent on desire, and of all desire as painful, is too crudely opposed to experience; and it is here pointed out that the philosopher was led to these dogmas by the necessity of his system. For this required him to show not merely that life is unhappy for this man or that according to circumstances, which is the empirical pessimism common enough amongst us, but that the very ideal of life is painful as it exists under the universal conditions of time, space, and causality, so that the sole refuge from misery is annihilation. Hence he is not justified in claiming Christianity as pessimistic, since its ideal life is good; the world was created good, and will be restored, though now suffering from the fall.

Again, according to Schopenhauer, the Will which is manifested in the world is itself blind, and only becomes conscious of the character of life by means of the fully developed human brain; yet the unconscious purpose to exist is sin, and the just penalty is our universal misery. But just punishment for an unconscious act is, says M. Renouvier, a contradiction; and he adds that it is a further contradiction to call such an action free. On this latter point, however, Schopenhauer might have defended himself on the ground that by free he meant uncaused, that causation belongs only to representations, and that, therefore, any act of the Noumenon must be free. It would be more difficult for him to meet another objection urged by his critic. He attributed to the Will two acts of freedom: (1) The blind resolve to exist or live as phenomenon, which produced the world; and (2) the fully conscious resolve to withdraw from existence, which will be taken whenever some saint or perfected Buddha sees the whole evil of life, and finally renounces it. But how is it possible that there should be two acts of a Being that does not exist in time? The long uneasy dream of life can only seem long in the state of dreaming: to the dreamer its beginning and end are the same. As to the second act of freedom, the renunciation of existence, it encounters the further difficulty that, being conscious, it should like other actions in the domain of consciousness (according to Schopenhauer) be subject to causation. This, however, is met by the explanation (which M. Renouvier seems to consider sufficient) that when the intuition of universal unity is attained the nature of knowledge changes: all particular conditions are then seen to be merely representation, and therefore all particular motives lose their power. But is this answer really satisfactory? Although in the act of renunciation the saint or Buddha, through whom it takes place, is free from the influence of particular motives, or at least from partial ones, he is, nevertheless, determined by reflexion upon life as a whole, the aggregate of particulars, whence the essential nature of life is learnt. The blind Will, indeed, was beyond the region of causation: but it is no longer blind; it has a reason for what it does. How then can it be free? It comes to this, that if we deny all categories of the Noumenon, it ceases to be a possible object of philosophy.

In treating of Schopenhauer's Ethics, M. Renouvier is less happy. According to the great pessimist, life is necessarily evil; but the unilluminated man cannot perceive this; his vain desires for pleasure incessantly carry him away, and spring up afresh after every disappointment. He takes seriously the empirical fact of individuality, and, therefore, is a wretched egotist, self-assertive, and carrying his absurd passion for life so far as to propagate his kind; which is the renewal of original sin. But the good man shows by his conduct some recognition of the superficial character of existence and of the latent unity of all things: hence as to his own desires he is ascetic; as to his fellows he is full of pity. The critic, however, finds these doctrines inconsistent; for if all are in reality one, the more enlightened our conduct the more egotistic it becomes. Hence Schopenhauer is, indeed, logical in suppressing the notions of obligation, duty and justice; but for the same reason he should suppress the notions of pity and love.

But in this objection there seems to be some misunderstanding. In the first place, Schopenhauer does not suppress the notion of justice: he does, indeed, separate it from duty and obligation; and in this he is not alone. But far from suppressing, he deduces it along with philanthropy from the radical and mysterious fact of pity. Pity moves us to refrain from injuring others, which is justice, and also to directly help them, which is philanthropy. *Neminem læde; immo omnes, quantum potes, juva*—is the highest maxim of Ethics: justice and philanthropy are the

cardinal virtues that include all others. Secondly, there is no inconsistency in preaching these virtues, although they imply individuality: for he plainly conceives of Ethics as concerned with the conduct of men as individuals in time and space. The recognition of unity in pity and in good actions is instinctive, not fully conscious; except, perhaps, for Buddha. Schopenhauer says expressly that in the attitude of pity "it remains at every moment clear that he [whomsoever we pity] is the sufferer, and not we ourselves". We identify ourselves with him, he says, *in some sort* (auf irgend eine Weise), break down the distinction between us *in a certain degree* (in einem gewissen Grade). Lastly, if the consciousness of our unity and of the desperate conditions of life is fully aroused, the time has come for the final act of renunciation. But that is not properly an act of merely human morality, but of the Will itself through Buddha; it springs from the rest of the World as a whole, and is not an act of pity, but of revulsion.

It may be observed that M. Renouvier exaggerates the unreality of Schopenhauer's phenomena, or World as representation. His doctrine is, in fact, the same as Kant's: phenomena have strict empirical objectivity. But his doctrine of the Noumenon, or the world as Will, seems to undermine the empirical objectivity. The reason of this is that by Kant the deeper reality of the Noumenon is only suggested, or at most postulated in relation to conduct, whereas by Schopenhauer it is made the basis of his whole edifice. Kant's hint has become Schopenhauer's dogma; but their difference on this point is only of emphasis. Schopenhauer's phenomena seem comparatively unreal, but he does not mean that they are so for experience.

On the whole, Schopenhauer seems to me the most interesting of the post-Kantian Germans. The only essential doctrine of his system that is in conflict with experience is the negative character of pleasure; for his position as to the fixity of species does not seem to be essential. But plainly pleasure and pain, good and evil, are equally real in experience; and no hypothesis can be satisfactory that fails to account for any of them. One wonders why no philosopher of the many who, like Schopenhauer, regard the World as a 'macranthrope,' ventures to be thoroughly consistent, and to work upon the supposition that the essential Being is, like human nature, curiously mixed. But they all assume that either it is absolutely good, or absolutely evil, or that it is the strife of two Beings of opposite natures. Probably they are all governed by the natural desire to escape entirely from evil whether into Heaven or into Nirvana. Schopenhauer's other difficulties, such as the possibility of two distinct actions on the part of a Being that is not in time, or the intelligibility of a purpose inhering in an unconscious Will, are such as must be expected in any philosophy that ventures beyond experience; and any reader may find such faults with the sublimest constructions. It must be admitted that his theory gives him an extraordinary command of half-truths: and which of his rivals in the history of thought has command of whole truths?

M. Renouvier's own theory seems at first to be only an enterprising modification of Christian theology; but he regards it rather as a collateral development of the same primitive speculations. Indeed the upshot of his great work *Classification des Doctrines Philosophiques* (reviewed by Mr. Whittaker in MIND, Jan., 1877) is that an alliance may be formed between the rational and religious ways of thinking—between Criticism and Christianism—founded on a common belief in the moral world, if whilst philosophy gives the place due to sentiment and will according to the postulates of practical reason, and does not deny a legitimate domain to faith, the Christian faith on its part repudiates firmly all the super-

fluities of Scholasticism, legend, and popular superstition which historical and scientific criticism can no longer defend. The chief point necessary to conciliation is that Christianity should abandon the belief that the Creator is infinite and absolute, since evil of any kind or quantity, however small, is irreconcilable with such doctrine. But supposing the Creator to be of finite power and knowledge, and to have created the world not as we know it, but perfectly good and harmonious in all its relations. and to have endowed some of His creatures with free will, the consequences of which of course He could not foresee, the abuse of this hazardous gift on their part may account for the evil of the world (which is intolerably great) without any reflexion upon the Creator, and we may believe that some universal law provides for the final restoration of harmony. Thus in spite of the evil of our lot we escape from pessimism, since the ideal of life is good ; the ideal was realised at the beginning and will be again at the last. Here, then, we have another of those constructions with which any reader can find fault. The only tests of a philosophy seem to be universality of explanation, consistency and the absence of any other theory equally successful; in short, what logicians call 'simple enumeration'. Nearly all theories are strong, or at least specious, whilst we listen to the exposition of a skilful advocate who makes the most of favourable considerations and the least of unfavourable ones: but all begin to look weak as soon as the devil's advocate comes and insists upon the difficulties. Among the claims that must be satisfied if universality and consistency are to be attained, there are those of certain facts generally admitted, such as evil or pleasure, and those of a sort of rules of the game such as the principle of contradiction or the law of causation. If these cannot be 'squared' they must be denied; and then Satan scoffs or protests, often in vain for a time if the fashion is against him (for there is as much a fashion in philosophemes as in furbelows); but to triumph he need only wait.

M. Dauriac's essay on the nature of emotion vindicates the purely psychic character of that phenomenon against the physiological interpretation of Prof. James. Without denying the physical accompaniments of emotion, he maintains that these are only reactive, and that the origin of emotion is in the soul. Emotion, he says, is a movement of the soul, not, indeed, a local movement, for the soul has no extension, but a qualitative change, which, however, is the reason and essence of all movement. But all thought and feeling being in this sense movements of the soul, emotion is distinguished as a kind of shock caused by the unexpected invasion of ideas and judgments. ' Still the physical reaction is an easier subject of science, and this may have misled some inquirers. Perhaps Prof. James will think that this explanation lays too much stress on the intellectual element of emotion, and is in some respects too scholastic to be convincing.

M. Pillon's contribution to the history of Idealism (by which he means subjective Idealism) begins with Democritus' distinction between primary and secondary qualities, and traces the course of the speculation as far as Locke. Democritus' suggestion remained undeveloped in classic and scholastic ages; and, although the history of modern philosophy coincides with the evolution of Idealism, Bacon was wholly out of sympathy with it. Accordingly the greater part of this article consists of an examination of the views of Hobbes, Descartes, Malebranche, Burthogge, and Locke. It is written with great discernment, and in a sound historical spirit, with no inclination to substitute for the genuine views of thinkers in former ages an account of what they might have said had they lived now.

CARVETH READ.

VII.—NEW BOOKS.

Primitive Music: An Inquiry into the origin and development of music, songs, instruments, dances and pantomimes of savage races. By Richard Wallaschek. London: Longmans, Green & Co., 1893. Pp. xi., 326.

This book is much more than an Ethnological Essay: it is an attempt in the light of ethnological facts to recast the biological and psychological theory of the origin and primary function of music. As such it is bold and ingenious, and sufficiently weighted with fact and argument to claim serious attention.

According to the common view music is not only an art confined to civilised races, it is a comparatively modern invention. Dr. Wallaschek seeks by a systematic review of such evidence as is accessible to prove that all the essentials of our European musical system are to be met with in the instrumental and vocal music of savage peoples. It is of course difficult to make sure of our facts here. Travellers have not always been musicians, and we know that it is exceedingly difficult to represent music, differing so widely in its form from our familiar melodies, in our notation. Dr. Wallaschek is quite alive to these difficulties and takes pains to obviate them. According to his generalisations music is common to all, or at least to the greater number of, savage tribes. And this music can be shown not to have been derived from contact with civilised men. The most noteworthy feature of this music, which we may suppose to be representative of primitive music, is its clearly marked rhythm. The song-dance, as illustrated, for example, in the war-dance of the Maoris, is carried out with perfect precision of movement by every member of the band. Our author allows that the tunes when judged as melodies apart from their rhythm are crude enough. Yet he argues very plausibly on the ground of a detailed examination of the musical instruments of savages that this embryonic art of untutored man is based on our diatonic scale of seven tones, and that it contains our so-called modern principle of tonality. Nay, more, he attempts to show that this savage music holds the germ of our elaborate modern system of harmony. The explanation of this early discovery of the underlying principles of our musical system is to be found, according to Dr. Wallaschek, not in any instinctive preference of ear or of vocal organ, but in the exigencies of practical instrumental music. The determination of the several intervals making up the diatonic scale is thus the result not of any æsthetic laws, such as those to which Helmholtz appeals, but of simple mechanical principles. The *rôle* which the author assigns to the musical instrument in the early development of the structure of music is a noteworthy feature of the book.

A full account is given of the connexions of this savage music with the whole life of the tribe. Singing is with the savage, as it is with the child, a common mode of expression of the changing emotional state. But this primordial singing seems, according to our author, to have as little relation to articulate speech as the first la-la song of an infant. In a separate chapter it is attempted to show that in primitive times vocal music is not a union of poetry and music. On the other hand, music does stand in a very special connexion with dancing or concerted pantomimic action. According to the author Richard Wagner was right

in referring the origin of music to dance-movement. This organic connexion between early music and concerted movement serves to explain the predominance of the rhythmic element.

Having thus reviewed and classified the facts the author proceeds to unfold his interpretation of these. This theoretic part of the essay is dealt with in the two concluding chapters, "On the Origin of Music," and "Heredity and Development". The author sets out with the proposition which his ethnological study supports, that a rhythmic arrangement of sounds is the starting-point in musical development. Rhythm is the "essence" of music, alike in its simplest form and in the most skilfully elaborated fugues of modern composers. But how does rhythm lead to melody with its discrete tones and definite tone-intervals? Here we have the most original and daring speculation in Dr. Wallaschek's book. Such discrete tones and tone-intervals serve, according to him, the better to mark the rhythmic phases of the movement. Unfortunately the author does not give us illustrations of his meaning here. He tells us that a rhythmical succession of bars and periods "is much more marked and can be more easily understood by a repetition of the same tones or tunes over the same rhythmical periods". Further, "in order to give a more pronounced tone to a rhythmical period, higher notes are used, lower notes marking a decreasing movement, and so on, till we have all the elements of a complete melody" (p. 234). I do not feel quite sure of the author's meaning here, but I take it that he looks at change of tone or pitch as an additional means of marking rhythm, and at similar arrangements of successive tones with respect to pitch as rendering equal divisions of time more easy of apprehension.

The author then proceeds to review the facts of so-called "Animal Music". He finds the song of birds destitute of rhythm, and on this ground is prepared to deny its musical character. On the other hand he detects in the "drumming" and dance of the gorilla, as in the concerted waltz-like dance of ostriches, a rudimentary form of that rhythmic sense which in primitive man originated the art of music. Hereupon he proceeds to criticise Darwin's theory that music had its origin in the love-songs of birds. He objects to this partly on the ground that birds' songs (as destitute of rhythm) are not true music, and that it is anthropomorphism to attribute to birds an æsthetic sense. He further urges the biological considerations that the development of sound-producing organs does not proceed concurrently with the evolution of the higher classes of animal; that birds' songs are not confined to the wooing season as Darwin assumed; that the transmission of love-associations in the way supposed by Darwin has been shown to be improbable by Weismann, and, finally, that the centre of song in the birds' brain answers not to the song-centre but to the speech-centre in the human cortex.

Having thus discredited the theory which would refer the origin of music to the lower animals, Dr. Wallaschek proceeds to criticise the theory, associated in recent times with the name of Mr. Herbert Spencer, that music is an outgrowth of human speech. In chapter vi. ("Text and Music") the author had already pointed out that in the earliest stages of its development music has but a very loose connexion with words. Many tribes have vocal music and no poetry, the two arts developing independently. Again, recitative, the oldest form of vocal music, according to this theory, does not, Dr. Wallaschek tells us, occur in the earliest stages of culture, but presupposes a comparatively developed language. In the later chapter he sums up the argument against Spencer's theory thus: (1) In the most primitive state of culture we find side by side a sort of recitative (this seems directly to contradict

what was said before, p. 180), a kind of music in which the rhythm alone plays a leading part, and also songs, the words of which are perfectly meaningless. This being so it is impossible for the musical modulations to have had their origin in the modulations of speech. (2) Primitive music is in many cases no modulation of tone but merely rhythmical movement in one tone, and so cannot be the result of modulations of the voice in speech. (3) Song does not develop *pari passu* with speech, but the intellectual importance of singing declines with the higher development of language. (4) Music expresses emotion; speech expresses thought; so that one could not have developed one of the other, but both were evolved from a common root, the primitive utterance.

After criticising the two best known current theories the author proceeds to formulate his own. Setting out with Weismann's theory he argues against the transmission of acquired musical ability. He seems disposed to regard the child of a modern European community as on a level with the child of a savage in respect of musical ability. Our great advance in the art of music is the result of "objective heredity," that is to say of a progressive musical tradition and education. Heredity counts for very little, if anything, in the explanation of musical genius: Haydn's father was a wheelwright, Schubert's a schoolmaster, Schumann's a bookseller. There is no such thing, moreover, as a special musical "faculty": what we call inborn musical genius is merely a superior mind directed by the special circumstances of its time to one particular form of art-production. If, now, we ask how the native rudiment of musical ability, in which we all appear to share, has come about, Dr. Wallaschek answers: "By natural selection". The sense of rhythm is absolutely necessary to concerted movement. Rhythmical sounds are, as we all know, the most effective means of regulating a succession of movements to be carried out in precise agreement by a number. The study of ethnological facts shows us that the earliest function of music was that of our modern military band. It assisted in an orderly harmonious performance of those pantomimic dances in which the fight and the hunt were rehearsed. Such rehearsals were of the greatest utility as exercise. Hence they are not to be regarded as 'play' in the sense of a mere overflow of surplus energy which primitive man could just as well have done without. Those tribes who had the finest sense of rhythm, and as a consequence executed these play-like rehearsals most perfectly, would have an advantage in the struggle for existence. In this way we may suppose that man's musical ability was developed by natural selection.

The reader may see from this brief outline of Dr. Wallaschek's argument that it is a new and exceedingly suggestive contribution to the psychology of music. Particularly interesting is the emphasis which his researches lead him to throw on rhythmic sound as the germ of musical composition, on the partial detachment of primitive music from poetry and language generally, more particularly through the early development of musical instruments, and on the useful character of that concerted pantomimic dance with which the earliest music was organically united. Dr. Wallaschek's theory will have to be carefully considered by anybody who in the future attempts to give an account of the genesis and development of what is in many ways the most puzzling of our arts. That he has completely proven his case, he himself would not, I suspect, wish to maintain. There is much in his theory that needs further elucidation and verification. For myself, I confess that I fail to follow him at more than one point. The necessary evolution of melodic interval and tonality out of the rhythmic impulse is far from clear to me. I can understand the occasional variation of pitch, say at the beginning of a bar, being

directly helpful to perception of rhythm, but I cannot help asking whether any considerable elaboration of melodic structure would not at the outset tend to distract attention from the time-relations. I, at least, can always best appreciate the rhythmic movement of a tune by de-melodising it, so to speak, as in humming it on one note, or in tapping. Again, Dr. Wallaschek's way of explaining the growth of our elaborate modern music seems to me to present more than one difficulty. It is certainly a fact in his favour that savages easily pick up and reproduce European music. Yet this falls a good deal short of proving that we are only upon the savage plane in respect of native musical ability. It is a familiar fact that among ourselves individuals differ extraordinarily in their capacity for discriminating tones: and this serves to tell against Dr. Wallaschek's hypothesis that musical ability involves no special aptitude of ear. Indeed, I should say that a person with the finest sense of rhythm, if unable to appreciate tone-intervals with exactitude, ought to be called unmusical. Is it not probable then, *a priori*, that savages, if compared with Europeans, might be found inferior on this side of musical appreciation? It will be seen here that I am disposed to regard discrimination of pitch and appreciation of tone-interval, as such, as essential ingredients in musical capacity equally with the sense of rhythm. Lastly, I find the greatest difficulty in following Dr. Wallaschek in his account of musical genius. I have always thought of genius as involving a special constitutional bent to particular lines of mental activity. Musical genius, as its precocity strongly suggests, seems to be the most striking illustration of this selective speciality of all genius. The supposition that Mozart had in his musical endowment potentialities of high intellectual achievement in any other field of production to which his circumstances might have directed him is for me a sheer impossibility. I hope that Dr. Wallaschek will follow up his most interesting and stimulating study by developing and fortifying these and other parts of his theory.

JAMES SULLY.

The Process of Argument. A Contribution to Logic. By ALFRED SIDGWICK, Author of *Fallacies, Distinction and the Criticism of Beliefs*, &c. London: A. & C. Black, 1893. Pp. 235.

This book is called a "contribution to Logic," but it is curiously unlike most other books that profess to treat of the same subject. Instead of the open effort to systematise—to classify and tabulate and define, to discover unity and likeness—instead of all the struggle after completeness, the keen and even violent desire to arrive at something, *totus teres atque rotundus*, which has impelled so many workers in the field of "Logic," — we find rather what looks, at first sight, like a continual effort after differentiation, a progressive perception of differences, a splitting up of every argument into a part that is fact and a part that is inference; then, again, a recognition that the fact is not wholly fact, and the inference not wholly inference — a subtle investigation which drives one to admit that what one had held to be the best of arguments is not altogether good, that what one had taken to be the worst is not wholly bad. In any conflict of opinion, in any case where there is ground and matter for dispute, whether the conflict is in *one* mind or between different minds, *there* — the author would bring us to admit — there is something to be said for both sides.

We are ready enough to admit this in the case of our own suspended or doubtful judgment; but it is not so easy to see when we are struggling

with an opponent. And yet we shall never learn to understand each other, shall never gain from controversy the benefit that we *might* gain, shall never get as much nearer to the truth as we *might* get, unless we work in this spirit—unless we take an opponent *at his best*, and spite of provocation treat him gently and honestly and refrain from hard blows, except for the sake of truth and right. And to do this requires not merely an almost superhuman generosity, and a most rare sweetness of temper, but also (in most cases) a strong and patient effort of intellectual sympathy. Such virtue is, however, not unfamiliar to readers of MIND ; and in the book before us Mr. Alfred Sidgwick reinforces example by precept, that is, as far as precept can avail in such a case.

It may be thought that to insist on the admixture of truth in all error, and of error in all truth, is highly sceptical ; but the reverse rather seems to me to be the case, for one must believe even more in truth and right if one thinks that even a little more of them is worth one's best and most patient effort, than if one works in the hope of getting at absolute perfection.

On the whole the *Process of Argument* may perhaps be described as an attempt to throw light upon what is frequently described as 'material' inference—to show how most error may be traced to mistaken conception of 'fact' or mistaken generalisation. Of the thirteen chapters which the book contains, chapters i.-vi. are concerned with the discovery of the theories which underlie any inference ; chapters vii.-xii. with the nature of the process by which we generalise from observed facts, or criticise our generalisations. The final chapter contains a summary of results, and there is added an appendix of interesting notes on logical technicalities, structure and typical form of syllogism, function of major premiss and 'essential' resemblance and difference.

The *Process of Argument* may be welcomed as an interesting and valuable contribution to the art of minimising error by means of an analysis of inference, whether in inward debate or in actual controversy, in attempting to get at the real meaning of another thinker and at the justification of his arguments.

Genetic Philosophy. By DAVID JAYNE HILL. London : Macmillan & Co., 1893. Pp. 373.

This book is ambitious for its size. It opens with a protest against Philosophy, or rather against the authoritative philosophers and philosophies, as contrasted with their rivals, the scientists and sciences. The province of Philosophy ought to be to "examine larger aggregates of facts than those dealt with by the special sciences," and "thus to unify a wider area of knowledge," but to use the same method. The distinctive method of science is the genetic. All facts are aspects of a process and the Genetic Method consists in referring every fact to its place in the series to which it belongs. Two philosophic systems, Hegel's and Spencer's, closely approach, without actually attaining this method ; Hegel because of his Idealism, and Spencer because he neglects the principle of the "continuity of being". After opening thus, Mr. Hill surveys rapidly the most recent theories of the genesis of matter and of life from matter, with interesting quotations from physicists and biologists. Then comes the genesis of consciousness, of feeling and of thought, each of which arise like crested waves from a deep of subconscious elements, under such special conditions as are described in our ordinary physiological psychology. The comparison of thought with matter now discloses the drift of the whole book. Some mode of sub-

jectivity similar to our own may exist throughout the object world. In volition we actually experience the psychic and the physical as one; conscious direction of energy and energy working material changes form a concrete unity. Before this point is finally urged, however, the genesis of art, morality, religion and science are sketched. The tendency of opinion is conservative as compared with many evolutionist writers; for example, the genesis of conscience is not allowed to rest in naturalism. There is generated a consciousness of the nascent possibilities of the soul, and of a "higher" and a "lower" which is distinct from pleasure or from mere quantity of life.

The conclusion of the whole book is Monism against Dualism. It is interesting both from style and selection of contents; but the main thesis is not novel, and any system which is to supersede Hegel and Spencer must set forth its evidence according to sterner standards of proof.

Aspects of Theism. By WILLIAM KNIGHT, LL.D., Professor of Moral Philosophy in the University of St. Andrews. London and New York: Macmillan & Co., 1893. Pp. 220.

Theism as a problem of Philosophy was made the subject of courses of Lectures delivered by Prof. Knight at Salisbury in 1890, and subsequently in London in 1891. These Lectures form the contents of the work before us, presented, as the author tells us, much as they were spoken, interspersed by some useful historical glimpses and seasonable literary garniture. "The special question we have to ask," says Prof. Knight, "is this: Is there, or is there not, a spiritual principle at the heart of things, within the matter of the universe, and pervading it from centre to circumference; which is not a mere *function* of this or that portion of matter that happens to be organised, but rather the interior essence of each separate thing that lives and grows, or feels and thinks?" (p. 10). Our author bases an affirmative answer to this question on two assumptions, *viz.*, that there is such a spiritual principle in man, and that "nature and man are fundamentally akin" (p. 12). This spiritual principle in nature and man is the "Logos" or "immanent Divinity," the universal postulate which, as our author somewhat naïvely admits, must be granted as the starting-point of theistic research. Modern forms of Theism, it is allowed, have been evolved from more ancient and ruder beliefs, such as Totemism, Fetishism and animal worship. But our author challenges the right to estimate the character of a finished product by that of its undeveloped germs: "It seems wiser," he says, "to read the past in the light of the present than to reverse the process" (p. 27).

In chapter iii. Prof. Knight classifies the evidence upon which the theistic beliefs of mankind have been based into five heads—ontological, cosmological, teleological, intuitional and ethical, and the remaining twelve chapters of this book are devoted to the examination of these theories. The ontological argument, in its Hegelian or modern form, rests on the implication of "Thought" and "Being"; this theory our author finds unsatisfactory because it issues directly in an idealistic universalism which obliterates all physical and moral distinctions, and conceives the Divinity as a mere "unillumined, colourless, blank ultimatum" (p. 52).

The cosmological proof is that which argues from the universe as an effect to the existence of a first cause; but it is easy to show that this argument either involves a regression to infinity or dispenses with

any necessity to infer the existence of a cause from its effect. If somebody must have made the world, who made the Maker? After a detailed examination of its claims to acceptance Prof. Knight disposes summarily of the teleological argument as follows: "It is illusory as well as incomplete, and were we to admit its relevancy it could afford no basis for worship, or the intellectual and moral recognition of the object whose existence it infers. The conception of the Deity as a workman—laying stress upon the notion of clever contrivance and deft manipulation—whilst it subordinates moral character to skill, could never lead to reverence or give rise to the adoration of the architect" (p. 75). Criticising the attitude towards the theistic hypothesis assumed by the scientists, Prof. Knight notices in chapter vi. that many of them endow physical atoms with intelligence and volition, and that all postulate a primordial energy which, if not a spiritual, is certainly not a material agency.

In chapter vii. our author enunciates emphatically the indissoluble union of metaphysic and theism. The core of Metaphysic he asserts to be the idea of Substance, and Substance is the Power generating phenomena and the latent soul, animating the body of Nature manifesting herself as antecedence and sequence. "So close is the connexion between Metaphysic and Theism that the fundamental question in both is the same, *viz.*, What is the nature of the Substance that underlies phenomena, and what the relation of phenomena to it?" (p. 102). Chapters viii. to xii. are occupied with an examination of theistic belief based upon the evidence of bare intuition. Intuitive evidence, our author contends, is that upon which every species of Proof must finally depend; the theistic intuition is the most direct, clear, convincing revelation of the existence of a Divine Being. This intuition manifests itself under three aspects: (1) in the consciousness which the human mind has of the Infinite (an intellectual phase); (2) in our perception of the world-soul, which is Nature's "open secret" revealed to the poet (an æsthetic phase); and (3) in the act of worship through which an object, correlative to the worshipper, is revealed in his sense of dependence (a moral and religious phase)" (p. 131).

To the fifth and last source of theistic evidence Prof. Knight seems to attach the greatest weight: after criticising and rejecting Kant's doctrine that the idea of a Deity is an implicate of the moral law, our author takes his stand on the phenomena of conscience as the highest attestation of an existence or Power transcending phenomena. Conscience in man, he affirms, is "an organ for the apprehension of the Infinite" (p. 184). The sense of freedom inseparable from the dictates of conscience is a revelation of the noumenal as distinguished from the phenomenal *ego*,—"it is the evidence of an infinite *alter ego*, kindred to the lower *ego*, and yet transcending it immeasurably. This moral dualism in human nature—the presence of two elements working together, and co-operating though occasionally conflicting—is perhaps the most suggestive evidence on which Theism rests" (p. 183). These Lectures should commend themselves to philosophical students on account of the moderation of their tone and the candour of their criticism, for although the mind of the author is evidently pervaded by "a dim religious light," there is not the slightest trace of the *odium theologicum* in his dealing with secularist opponents.

T. Woodhouse Levin.

Abnormal Man: being Essays on Education and Crime and Related Subjects. By Arthur Macdonald. Washington: Government Printing Office, 1893.

Mr. Macdonald is already known as the author of a work on criminology

in which he summarises the ideas of Lombroso for the benefit of the American public. The present volume is of a somewhat similar character. It is a reproduction of reviews of books and periodicals dealing with education, pauperism, insanity, crime and kindred subjects. It is only incidentally that we get a glimpse of Mr. Macdonald's own ideas upon all these important matters. This is owing, as he tells us, to the fact that his principle has been to take the point of view of each writer so that the reader may gain a clearer insight into the spirit and scope of the book reviewed. Criticising Mr. Macdonald's work from this standpoint we are pleased to say that his summaries of each writer are done in a very painstaking manner. He has also drawn up a very exhaustive bibliography of his subject.

L'Action. Essai d'une Critique de la Vie et d'une Science de la Pratique. Par Maurice Blondel. Paris: Félix Alcan, 1893. Pp. 492.

It is difficult to get any point of view from which to consider this treatise as a whole. It begins as a psychological study interspersed with moral reflexions, it culminates in theological rhapsodies, and finally descends into the metaphysical arena of knowing and being. From the title we were led to expect a contribution to psychological and ethical science, and it will perhaps be best to take the book for what it professes to be, and give what account of it we can from this point of view; this aspect of it, however, is entirely subordinated by the author to the development of certain well-known theological dogmas.

The chief psychological interest lies in what M. Blondel has to say of unconscious tendencies, and their influence in determining conscious action. We have looked in vain, however, for a sufficient definition of action and will (both of which are treated as self-subsisting and distinct entities) by which to be guided in interpreting the author's treatment of his subject. Perhaps the only real attempt at psychological analysis is with reference to the organic sense and the consciousness of muscular effort; and as this is a central point in the psychology of action it may be as well to give a summary of M. Blondel's analysis. There is, he tells us:—

1. A primary afferent action of the organism, unconscious in its working, conscious in its results (l'idéation on l'idéogénie).
2. A primary efferent action of thought perceived only in its subjective essence. (This we understand to be the activity of mental development and synthesis.)
3. An efferent action of the will unperceived in its corporeal effects.
4. An efferent action of the will at first unperceived in its subjective nature and perceived only in its organic effects. This is the *point décisif* where the body appears to consciousness, where from the interior conflict of tendencies there arises the feeling of the organism, where the transcription of the spiritual into the corporeal takes place.
5. An efferent action of the will unperceived in its organic effects and perceived only as a motor representation.
6. Finally, an afferent action of the organism constituting the response elicited and expected, the verification of the project of the will.

In Ethics M. Blondel will allow of only one principle, that of unlimited and unreasoning self-sacrifice. It is a direct corollary from his theological views. There is only one moment of free-will, that in which we accept or reject the Divine will; and the former position involves complete self-abandonment. It is a repetition of the mischievous old fallacy that duty consists in doing what we don't like, and, as usual, when morality

is simplified down to this point we are bribed to accept it by the assurance that in the long run we shall gain more than we shall lose.

H. Dendy.

Cours de Philosophie. Par Charles Dunan, Professeur de Philosophie au Collège Stanislas, Docteur ès Lettres. Paris: Librairie Ch. Delagrave. Pp. 336.

A volume treating of psychology, to be followed presumably by others on metaphysics, &c. After a brief introduction on object and method, and a chapter on consciousness in general, "la sensibilité," "l'intelligence," and "l'activité," are dealt with in detail. Under "la sensibilité" are brought, curiously enough, "les tendances" or "appétitions," an arrangement which introduces an unnecessary difficulty into the account of the will. M. Dunan rejects "sensualisme" both as theory of the will and as theory of the intelligence ("La volonté ne se reduit pas plus aux désirs, que l'intelligence ne se reduit aux images"), but having given "appétition" to "la sensibilité" he can retain the *sui generis* character of the will only by making it "le tout organique que les désirs forment," a position which he scarcely succeeds in justifying. The bulk of the work is devoted to "l'intelligence," and contains much acute summarising and criticism of rival theories, the citations ranging from Aristotle to Herbert Spencer, but the argument is frequently more metaphysical than scientific. The work is written with a certain freshness and vigour, but it has no special claims on the attention of the advanced student of psychology, while for the beginner the failure to preserve a strict line of demarcation between empirical and rationalistic psychology is a serious blemish.

Le Problème de la Conscience du Moi. Par le Dr. Paul Carus. Paris: Félix Alcan, 1893. Pp. xii., 144.

In part a translation of the author's work, *The Soul of Man.* The chapters common to both books have been to some extent re-written, the rest, *i.e.*, five chapters, are now published for the first time, and deal with the nature of Self-consciousness from the Monistic point of view, with the import of states of consciousness and of psychic telepathy, with the question how far mind is mechanism, with the relation of sensations and ideas to the soul, and with the problem of Theism.

Grundzüge der physiologischen Psychologie. Von Wilhelm Wundt, Prof. an der Universitat zu Leipzig. Vierte umgearbeitete Auflage. 2 Bände. Leipzig: W. Engelmann, 1893. Pp. xvi., 600; 143 woodcuts: xii., 684; 94 woodcuts.

This edition is larger by 178 pages than its predecessor of six years ago, of which a critical notice appeared in Mind, vol. xiii. pp. 435-439. One new feature of the present edition is the more detailed treatment of experimental methods and fuller descriptions of apparatus and technical procedure. Another is a carefully prepared index consisting of thirty-six closely printed pages. For the rest the new matter results almost entirely from the incorporation of the work done by Wundt, his pupils, and others in the three sections (ii.-iv.) Sensation, Elaboration of Ideas, Consciousness and the Course of Ideas; and these are the properly 'experimental' or psychophysical portion of the work. The first and more strictly physiological (or neurological) section remains comparatively as

it was even in the second edition, though even here indications of Wundt's truly wonderful industry and erudition are not wanting. But it can scarcely be called "up to date," and one could not recommend the student anxious to know the present state of neurology, so far as it is of psychological interest, to trust entirely to Wundt's exposition. In like manner the last two sections, which are more strictly psychological, do not appear to have been materially altered since the second edition. The moral is obvious: If Prof. Wundt could see his way to treat of psychology apart from, as well as along with, physiology, the advantage would be great both to his readers and to himself. As it is, very important parts of his psychological doctrine are relegated to his logic or his ethics, where, of course, they are also out of place. Systematic psychology is neither bulky nor liable to change every half-dozen years; and it is a serious misfortune for knowledge generally that a man of Wundt's philosophic eminence should have set the fashion of tethering so renowned and ancient a study to any narrow and one-sided inquiry, however important. The result is a sort of elephantiasis which might prove fatal to what is best and worthiest. But we believe in the *vis medicatrix naturæ*, and there are already signs of a change for the better.

J. W.

Zur Verjüngung der Philosophie. Psychologisch-kritische Untersuchungen auf dem Gebiet des menschlichen Wissens. Von I. SEGALL-SOCOLIU. Erste Reihe. *Das Wissen vom spezifisch Menschlichen.* Prolegomena. Berlin: Carl Duncker, 1893. Pp. iv., 261.

The author does not, in the first instance, state explicitly the ground of the assurance conveyed by his title, *viz.*, that he is contributing to the rejuvenescence of philosophy. There should, for that matter, arise no lack of subsequent opportunity for him both to state and to substantiate that ground, since we have here only the prolegomena to the first of a series of philosophical inquiries "in the domain of human knowledge". As a differentiation from this general title, the heading given to the forthcoming first series – "Knowledge of the Specifically Human"— does not, perhaps, convey much. And, in general, it is to be deplored that an undertaking of such noble ambition, and possessing the interest that must attach to the reconstruction, or shall we say, the provisional solution, of philosophical problems from the standpoint of an accepted synthesis, should not be clothed in worthy literary style.

The accepted synthesis is Monism; and such is the courage imparted by coming to a conclusion, monistic or other, that the author, scorning the *ignorabimus*, let alone the *ignoramus*, of Dualism and Parallelism, exclaims: "There are no insoluble problems!" So he proceeds to solve that of the "Psycho-physiologists," and to show that Dualism was but an immature determination on the way to a higher resolution of phenomena. But he does not do this by way of mere deduction and corollary from a monistic standpoint. He sets himself to work out his arguments "from the psychological standpoint, as being that of which the philosophy of the future will make use to the exclusion of all other". Perhaps epistemological-inductive would apply more correctly than "psychological," pure and simple.

Be that as it may, his attempt is to show that the interdependence of the psychical and the physical being complete, and the causal nexus out of the question, the only conceivable relation is that of the mathematical "function," each concomitant presenting modes of a common

substratum, and forming together not a compound or sum, but an indivisible unity, one and the same fact or event. Then, since there seem to be stages in the neuro-psychosis, where the dual functioning is not concomitant but successive, he proceeds to show, on the one hand, that sensation (the psychical fact) is in the last resort "nothing more than a highly complex movement," or conversely that the physiological process "at a certain pitch of complexity *is* a sensation," and, on the other, that every part of the physiological process has its psychical side, the *terminus ad quem* of the argument being the conception of a universe of psycho-material existences.

Next the antithesis of "subjective" and "objective" is argued away analogously, for "there is no sense in setting up an antithesis, when there is only a question of quantitative difference". (But if the difference in kind be reduced to difference in quantity, the causal nexus might stand.) The subjective is defined as a highly manifold summation of objective elements. And then other and ontological antitheses—atomism and pantheism, thing-in-itself, and phenomenon, being and becoming—are attacked and fused in this spirit of higher synthesis, bravely, if not always lucidly, till we are dimly brought to see, through much-distorted speech and many typographical blunders, that we live in a world where "all social, psychical and morphologico-physiological happening is, in the last resort, nothing else but physical happening, nothing else but the groupings of such happening at different degrees of intricacy, and that the basic principle, the *Grund* of our world, is not being, but "merely becoming, merely force".

Finally, these extremely spirited, not to say audacious, prolegomena engage the reader to look for a forthcoming "first series," on the Psychology of philosophising, and on the Psychology of Social Evolution, a "second series," on the Knowledge of the Specifically Biological, and a third, on the Knowledge of the Universally Physical.

Filosofia Morale. Di Luigi Friso, Professore nel R. Liceo Parini. Manuali Hoepli, cxxxv.-cxxxvi. Milano: Ulrico Hoepli, 1893. Pp. xxvi., 335.

This is a student's manual of the history of ethics. It is concerned not so much with connectedness in the web of moral speculation as handed on from one ethical spinner to another, as rather to show how the stress of varying conditions presented moral problems to different societies and to thinkers in those societies under evolving, ever freshly modified aspects. In other words, it is a sketch of ethical theories framed in a sketch of the history of morality. It is even more, for there is not always rigid differentiation of ethics from politics or jurisprudence, metaphysic or theology. The resultant impression is perhaps more likely to stimulate a strong interest in the subject amongst "i Giovani" for whom it is written, than our own more anxiously differentiated efforts to debar ethical handbooks from anthropological, religious or political implications,—with this result, that our students get the sublimated ideas of the academy and the study isolated from the seething tendencies of market-place, battle-field and heterodox love-feast from which they were evolved. And therein they get something that is as it were barren and without a sufficient reason as to its developments. In this little book every episode is lively with organic growth and decay; as an instance of much said in few words it is very remarkable, and if the author does not always sustain that strict objectivity of treatment to which he pledged himself at the outset, he naturally does but gain in

vigour where he permits himself to put a view as it looks from the standpoint of his own (experientialist) convictions.

And then he does not belong to a nation which has long looked upon itself as the elect standard-bearer of morals, and which lives on an island; hence he is the less Ptolemaic in his views. He does recognise the fact that ethical philosophy did not begin at Athens, that the great ethical developments of the ancient East deserve at least one chapter of recognition against nine for Greek ethics, 'even although and because' they are not the direct source of West European moral theorising, and finally that modern ethics in France, Germany and England deserve the attention of Italian readers as well as the ethical thought of modern Italy. An unknown field to English readers, brought up on Hobbes, Butler and Utilitarianism with a dash of Kant, will be opened in the final chapter on *La Filosofia Morale in Italia* for the last century and a half, from Vico to Ardigò and Angiulli. Beccaria, Rosmini, Lombroso –only these will be more than names to some and no more to many. Twenty years of political unity and quiet have finally developed an unsurpassed social and scientific activity in Italy, and amongst other results evolved "a system of morals in which *il sentimento intimo e il vero scientifico* join hands in reasonable and affectionate agreement".

Nevertheless, to revert in concluding, it is only too significant a proof of how, even in young Italy, interest in ethical theory is measured by its intimate relation to West European developments, when in the work of an expert such slovenly exposition occurs as that which styles Siddartha, *i.e.*, Gotama Buddha, *Arddha Chiddi*, and defines *his* doctrine of Nirvăna, in terms of that Pantheism against which it protested, as "the identification of oneself with the supreme principle of the universe, . . . dissolution into infinite felicity!"

Le Scienze Morali e Politiche. Guiseppe Cimbali. Rome: Roux e Co., 1893. Pp. 86.

In the preface to his *Principles of Morals and Legislation*, Bentham makes the profound remark that "truths which form the basis of political and moral science are not to be discovered but by investigations as severe as mathematical ones, and beyond all comparison more intricate and extensive". The treatise before us is not so much concerned with an inquiry into the truths of moral and political science as with an examination of the methods in which the inquiry should be conducted. On this point Signor Cimbali arrives at the conclusion that the methods of natural science are not applicable in the domain of moral and political study. It is perhaps worthy of note that the late M. Taine expresses an exactly opposite conviction in the second volume of *Le Regime Moderne*, which has just made its appearance. He says that Hume has adduced decisive arguments to show the equal value of "procédé probant" in the moral and in the physical sciences. Ethics is the study of how individuals, and politics is the study of how nations ought to live. But these studies are only fruitful when they are based upon the laws of mental and social life as ascertained by experimental methods.

Received also:—

W. Windelband, *History of Philosophy*, Authorised Translation, by J. H. Tufts, Ph.D., New York and London, Macmillan & Co., 1893, pp. 659.

J. P. Cooke, *The Credentials of Science*, Macmillan, 1893, pp. viii., 323.

J. Owen, *The Skeptics of the French Renaissance*, London, Swan Sonnenschein, New York, Macmillan, 1893, pp. xiii., 830.

J. M. Sterret, *The Ethics of Hegel*, Boston, U.S.A., Ginn & Co., 1893, pp. xii., 216.

W. L. Davidson, *Theism as Grounded in Human Nature*, The Burnett Lectures for 1892 and 1893, London, Longmans, Green, & Co., and New York, 1893, pp. xxvi., 469.

S. A. K. Strahan, *Suicide and Insanity*, London, Swan Sonnenschein, 1893, pp. vi., 228.

A. J. Bascom, *An Historical Interpretation of Philosophy*, New York and London, G. P. Putnam's Sons, 1893, pp xiii., 518.

Fr. Paulhan, *Les Caractères*, Paris, F. Alcan, 1894, pp. 237.

J. Payot, *L'Éducation de la Volonté*, Paris, F. Alcan, 1894, pp. 274.

J. Pioger, *La Vie et La Pensée*, Paris, F. Alcan, 1893.

V. Delbos, *Le Problème Moral dans la Philosophie de Spinoza et dans l'Histoire du Spinozisme*, Paris, F. Alcan, 1894, pp. xii., 569.

Ch. Adam, *La Philosophie en France*, Paris, F. Alcan, 1894, pp. 444.

O. Külpe, *Grundriss der Psychologie*, Leipzig, W. Engelmann, 1893, pp. vii., 478.

H. Sigwart, *Logik*, Bd. 2, Zweite durchgesehene und erweiterte Auflage, Freiburg C. B. und Leipzig, J. C. B. Mohr, 1893, pp. viii., 777 (158 additional).

G. K. Uphues, *Psychologie des Erkennens*, Erster Bd., Leipzig, W. Engelmann, London, Williams & Norgate, 1893, pp. viii., 318.

A. Döring, *System der Pedagogik im Umriss*, Berlin. R. Gaertner, 1894, pp. xi., 299.

G. Semmel, *Einleitung in die Moralwissenschaft*, Bd. ii., Berlin, W. Hertz, 1893, pp. viii., 426.

VIII.—PHILOSOPHICAL PERIODICALS.

The Philosophical Review.—Vol. ii., 5. J. Watson—Metaphysic and Psychology. [Criticises Professor J. Seth's individualism, his opposition of knowledge and existence, and his "assumption that the subject is limited to his own states". Seth's account of the relation of God to finite beings is specially attacked.] Eliza Ritchie—The Ethical Implications of Determinism. [Freedom and moral responsibility, rightly conceived, are perfectly compatible with the causal determination of acts of choice.] J. Seth—The Truth of Empiricism. [The truth of empiricism is that the real is the individual, that existence is irreducible to essence, and that "we must take our stand in the object rather than the subject".] E. Adickes—German Kantian Bibliography (iii.). [Catalogues works bearing on Kant by Jacobi, L. H. Jacob, Obereit, Pezold, Rehberg, Sprengel, Abicht, Flatt, Kiesewetter, Maas, and some other less important writers.]

Brain.—Spring, summer, and autumn numbers, 1893. Henry Head—On Disturbances of Sensation with especial reference to the pain of Visceral Disease. [That each segment of the spinal cord contains sensory elements representing a definite area of the surface of the body; that the pain of visceral disease is referred to the area or areas represented by the segment or segments supplying the viscus affected. The present paper deals only with the parts below the clavicle, and is a very valuable contribution to our knowledge of spinal sensory arrangements.] C. A. Schäfer—The Nerve Cell considered as the basis of Neurology. [A valuable sketch of the present state of our knowledge of the minute anatomy of the nervous system.] S. E. Henschen—On the Visual Path and Centre. [Based on clinical evidence; the visual centre localised in the cortex of the calcarine fissure.] Prof. Bernheim—On the Psychical Nature of hysterical unilateral Amblyopia and sensitivo-sensorial Hemianæsthesia. Prof. Linthoven—On the Production of Shadow and Perspective Effects by difference of Colour. [That the apparent difference of distance of red and blue may be under certain conditions a monocular phenomenon; that it is due to eccentricity of the pupil, like the binocular phenomenon described in Graefe's archives, vol. xxxi., the chromatic aberration of the eye giving rise to a shadow effect.] Prof. Hitzig—On attacks of Lethargy and on Hypnotic Suggestion. [A study of the influence of lethargy and hypnotic sleep on the nutrition of the body.] James Mackenzie—Some points bearing on the Association of Sensory Disorders and Visceral Disease. William Thorburn—The Sensory Distribution of Spinal Nerves. W. Hale White—On the exact Sensory Defects produced by a localised lesion of the Spinal Cord. [Three papers bearing on Dr. Head's work.]

The American Journal of Psychology.—Vol. v., No. 4. Edmund C. Sanford—Some Practical Suggestions on the equipment of a Psychological Laboratory. Mary W. Calkins—A statistical study of Pseudo-Chromæsthesia and of Mental Forms. Thos. P. Bailey—Ejective Philosophy. ["Impulse is the psychological and philosophical standard."] Alexander Fraser—The Psychological Basis of Hegelism. [On the influence of Galvani's discovery on Hegel's philosophy.] James H. Leuba—National destruction and construction in France as seen in modern literature and in the Neo-Christian movement. Vol. vi., No. 1. Benjamin J. Gilman—Syllabus of lectures on the Psychology of Pain and

Pleasure. Arthur H. Daniels—The New Life ; a study of Regeneration. [A comparison of regeneration (in the religious sense) with puberty.] Frederick Tracy—The language of childhood.

In the International Journal of Ethics for October, Professor Sidgwick, under the title of " My Station and its Duties," discourses on the aims and methods of Ethical Societies. Mr. W. L. Sheldon writes thoughtfully and not unwisely, but without marked originality, on the question, ' What Justifies Private Property ? ' Dr. John S. Billings describes ' the effects of his occupation on the physician ' ;—it appears that a physician tends to be habitually self-sacrificing, charitable in his moral judgments from his experience of the physical causes of moral evil, inclined to set a high value on accuracy of statement, though ready to speak deceptively in defence of his patients' health or professional secrets, and incredulous as to the natural liberty and equality of mankind. Professor Royce contributes a vigorous and subtle paper on, " The Knowledge of Good and Evil," in reply to Mr. Simmel's paper in the July number on " Moral Deficiencies as Determining Intellectual Functions ". Mr. Royce's essay is too pregnant to summarise ; one of his main points is that the dependence of function on deficiency, found in processes of the moral life, holds both within the intellectual and within the moral sphere as much as in the relation between the moral and the intellectual. Mr. C. M. Williams writes on " A Phase of Modern Epicureanism,"—meaning the tendency of voluptuaries to consider themselves superior as human beings, from the genial richness of their unrestrained natures, to the bloodless prigs who conform to moral rules. Mr. D. G. Ritchie criticises the views of " motives " adopted in Mr. Muirhead's and Mr. Mackenzie's manuals respectively ; and Dr. Westermarck replies to Dr. Starcke on " Human Marriage," in a tone rather scholarly than ethical.

Revue Philosophique.—18me Année, No. 10. October, 1893. A. Fouillée—L'abus de l'inconnaissable et la réaction contre la science. [Experience itself leads to the *conception* of the unknowable. The elements of *objective* knowledge are sensations and notions, neither of which exhaust object-reality. Scientific explanation is reduction to law, to constant resemblances, and fails to give an account of the final differences, as also of the final resemblances. Scientific analysis is inadequate, scientific synthesis incomplete. The notion of difference, in itself a condition of thought, leads them to the notion of the *unknowable for us*, and this in its turn to the notion of the *unknowable per se*. *Subjective* experience, on the other hand, gives us an immediate ' unknowable,' gives absolute elements as *real, viz.*, sensation, feeling, appetition—which are not necessarily ' knowable,' *i.e.*, are not objects of the reflective consciousness. We thus have *consciousness* of the real but not knowledge in the sense of perception of relations and reasons.] L. Marillier—Du rôle de la pathologie mentale dans les recherches psychologiques. [An account of the investigations of M. Magnan and of their psychological bearing.] G. Ferrero—L'arrêt idéo-émotionnel : Etude sur une loi psychologique. [Explains the persistence and force of social and religious customs and ceremonies which have lost their originally utilitarian aim, by the law that in association of ideas only those ideas are preserved which are necessary to the needs of existence, and consequently maintained by permanent excitations.] Analyses et comptes rendues, &c. No. 11. November, 1893. J. Delbœuf—L'ancienne et les nouvelles géométries—1. L'espace réel est-il l'espace euclidien ? [Conceives a planetary system in every respect except size identical with our own, but reduced in size by

one half, with its inhabitants and contents, and finds that while the geometrical relations would remain the same, the mechanical and other relations would be changed; concludes therefore that while homogeneity is the characteristic of geometrical space, it is incompatible with reality.] André Lalande—Sur les paramnésies. [Treats of the curious and familiar phenomenon of false memory, the sense of previous experience of something seen or heard for the first time, and offers as explanation the existence of a double perception, at first unconscious and afterwards conscious.] F. Paulhan—La Classification des types moraux et la psychologie générale. [Proposes two main divisions: "1. The class of qualities attaching to the mode of existence of tendencies, and to the general character of their relations in the individual; coherence, logic, contrast, vivacity, tenacity, &c.; 2. The class of qualities constituted by the tendencies themselves, by organic tendencies as gluttony, or by general and intellectual tendencies," &c. The first class comprises the forms of mental activity, the second the concrete elements directing this activity. This classification is in close connexion with M. Paulhan's general psychological theory as expounded in his work *L'Activité mentale et les éléments de l'ésprit.*] Notes et Discussion. [E. Buckheim, H. Mazel—La définition de socialisme.] Analyses, &c.

Zeitschrift f. Psych. u. Phys. d. Sinnesorgane.—Bd. v., Heft 6. A. Schapringer—Zur Theorie der 'flatternden Herzen'. [*Cf.* vol. iii. pp. 359 ff. Explanation in terms of the chromatic aberration of the refractive media of the eye, and of its defective centration. General principle of 'metamorphopsy by colour-difference'.] K. L. Schaefer—Nochmalige Ablehnung der cerebralen Entstehung von Schwebungen. [*Cf. Philos. Studien*, vii. pp. 630 ff., &c. Corrections of Scripture's remarks: *Phil. Stud.*, viii. pp. 638 ff. As regards Wundt's article (*Phil. Stud.*, viii. pp. 641 ff.),—the remaining question is: In the case in which the primary tones are uninterruptedly approaching the limen, which ceases first,—conduction by bones of the head, or beats? or do both cease together?] Litteraturbericht. Bibliographie der psycho-physiologischen Litteratur des Jahres, 1892. [Pp. 419-492.] Bd. vi., Heft 1. F. Brentano—Zur Lehre von den optischen Täuschungen. [*Cf.* vol. iii. pp. 350 ff., &c. A further stage of a most interesting discussion. Criticism of Delbœuf's views: *Revue scient.*, Feb. 25, 1893.] R. Wallaschek—Die Bedeutung der Aphasie für die Musikvorstellung. [(1) *The facts of aphasia.* Classification: clinical cases. (2) *The musical idea.* Three principal theories of aphasia. Music, in particular, is by some persons ideated in connexion with visual ideas, by others with ideas of movement or actual movements, by others with clang ideas; while a fourth class ideates it as an intellectual play of tone-figures. (3) *Conclusions.* The 'musical types' cannot be strictly differentiated, either within the same nation, or in regard to different peoples. A life of concrete ideation does not appear to be favourable to musical endowment. The association-difference between the musical and the unmusical. Musical æsthetics. The origin of music is to be looked for principally, on the psychological side, in the time-sense.] C. Stumpf—Bemerkungen über zwei akustische Apparate. [(1) The common-chord (*Dreiklang*) apparatus. For the investigation of major and minor chords, beats, difference tones, partial tones, intervals and distances. (2) The interval apparatus.] Besprechungen. Litteraturbericht.

Philosophische Studien.—Bd. ix., Heft 1. G. F. Lipps—Untersuchungen über die Grundlagen der Mathematik. I. [*The problem, and the method of its investigation.* The author's aim is a simple description of the

activity of thought, by which mathematical concepts are obtained from ultimate given facts. His work continues, on a broader scale, that of L. Lange (concept of Motion, iii. 337, 643) and W. Brix (concept of Number, v. 632, vi. 104, 261).] J. Merkel—Die Methode der mittleren Fehler, experimentell begründet durch Versuche aus dem Gebiete des Raummasses. II. [*Cf.* p. 53. Experimental procedure: Fechner and Müller, Münsterberg and Higier, Meumann and Schumann. Test of the method, by experiments already published.] L. Witmer—Zur experimentellen Æsthetik einfacher räumlicher Formverhältnisse. II. [Experiments: (1) Division of a straight line. (2) Greater and less as limbs of a right-angle. (3) Two lines at right angles. (4) Two lines crossing. (5) Closed figures. (6) Multiple proportionality in simple figures; (7) in complex figures. (8) Dependence of æsthetic pleasure on the absolute magnitude of the figure. Total result: Establishing of a 'normal proportion' in the æsthetics of simple figures. Individual divergence of the æsthetic judgment. Explanation of æsthetic proportionality; principle of æsthetic contrast.] E. Meumann—Beiträge zur Psychologie des Zeitsinns. II. [Psychological conditions of the comparison of time-intervals: (1) The important thing for shortest intervals is the limiting sensations, for long, the time between them. (2) The time-content is in the former case a succession, in the latter a duration. (3) Rhythm. (4) Æsthetic factors of time-estimation. (5) No time-memory in the case of shortest times. (6) Attentional differences. Dependence of time estimation on the intensity and variation of intensity of the sensations limiting the interval. Apparatus. (1) Experiments showing that a continuously progressive series of more intensive sound-impressions passes more quickly than a similar series of weaker impressions. Sensational fusion or discreteness the reason. (2) Influence of variation of intensity. Rhythm of accentuation; its relation to temporal rhythm; its relation to the principle formulated under (1). Subjective accentuation. *Results:* (1) The intensity of the limiting sensations influences our judgment of time-intervals. This intensity operates but little through change of sensational duration; but little by association; but little through general attentional phenomena: the problem belongs rather to the psychology of rhythm. (2) Elementary relationship of the rhythmical impressions of various kinds of sensation-change. Possible import of subjective accentuation, as mediator between change of impressions and of times.] J. McK. Cattell—Chronoskop und Chronograph. W. Wundt—Bemerkunger zu vorstehendem Aufsatze. [*Cf.* viii., 153. Criticism and vindication of Wundt's chronograph as control-apparatus.]

Allgemeine Zeitschrift für Psychiatrie.—Bd. l., Heft 1 and 2. E. Bleuler—Versuch einer naturwissenschaftlichen Betrachtung der psychologischen Grundbegriffe. ["The collective functions of the nervous system make up the conscious *Ich*, furnished with all the properties that we are accustomed to ascribe to the human mind (Seele.)"] Dr. Sommer—Zur Lehre von der "Hemmung" geistiger Vorgänge. [Account of a case of stupor in which reaction to questions, especially in naming seen objects, was extremely slow.]

Archives de Physiologie.—October, 1893. Victor Henri—Recherches sur la localisation des sensations tactiles. [Method—the point touched and localised on a life-size photograph; result that errors in localisation occur in certain definite directions.] Alexandre N. Vitzou—Effets de l'oblation totale des lobes occipitaux sur la vision, chez le chien. [That removal of one occipital lobe in the dog causes permanent loss of sight in the external three-fourths of the field of the opposite eye, and in the

internal fourth of the field of the same side; that removal of both occipital lobes causes total permanent blindness of both eyes.]

Vierteljahrsschrift für Wissenschaftliche Philosophie.—Bd. xvii., Heft 5. C. Ehrenfels—Werththeorie und Ethik. [Is too lengthy and too full of matter to make a short abstract possible. Among the topics treated are, the influence of ethical approval and disapproval in promoting the corresponding moral actions and dispositions, and the derivation of ethical valuation of moral dispositions, &c., from direct valuation of the results which these dispositions tend to bring about. A very ingenious attempt is made to introduce into the Ethical sphere a principle corresponding to that of final utility in Economics, and the main factors which determine the movement of ethical values are carefully discussed. We hope that this remarkable series of articles will soon appear in book form.] N. Swereff—Zur Frage über die Freiheit des Willens. [The antithesis of Freedom and Necessity is illegitimate: they are disparate concepts like those of weight and colour.] E. Wachler—Zur Kritik der historischen Methode. [All history is of necessity so coloured by the personality of the historian that the pretensions to scientific exactness advanced by the modern school must be rejected as untenable.]

Rivista Italiana di Filosofia.—Anno viii., vol. ii., 1893. September and October. R. Mariano—La Dottrina dei XII. Apostoli e la critica storica. [Concludes that no documentary criticism can afford an adequate demonstration in the field of primitive Christianity, that it must be supplemented by appreciation of the 'ideal value' of the historical reality.] F. de Sarlo—Le teorie moderne sulle psicologia della suggestione. [Reviews the several theories which explain (1) by psychical disintegration, psychological automatism or division of consciousness (Janet, Myers, Dessoir, &c.); (2) by association of ideas (Wundt, Freud); (3) by mechanism of the representations or of the psychical energy (Schmidkunz). The first is vague and indeterminate, the second fails to account for the phenomena of 'coexisting consciousnesses,' and of the reference of some subjects of certain of their acts to a second self, or to another personality, while the third is inadequate as failing to explain negative hallucinations, post-hypnotic suggestions, suggestive paralysis, as also the diminution of the ethical, logical and æsthetic standards which is yet made a condition of suggestibility. Concludes that the recognition of mental activity is essential to a satisfactory explanation.] C. M. Ferrari—Pensieri su'l Bello. [A—Contenuto e forma del Bello. B—Il Bello naturale e il Bello artistico. Sistema delle arti belle.] Bibliografia, &c. November and December. A. Piazzi—Scuole e questioni pedagogiche in Germania. [Describes the teaching in German universities, and more particularly at Leipzig.] G. Vidari—Saggio storico-filosofico su Gerolamo Cardano. [Gives a brief and interesting account of (i.) the life, (ii.) the cosmology, (iii.) the theory of knowledge, (iv.) the ethics and 'pedagogics' of Cardanus, and concludes that, notwithstanding an almost absolute lack of system and method, Cardanus is entitled, by virtue of this conception of universal animation, of his tendency at once sceptical and pessimistic, and of his revolt against the past, to rank on a level with his contemporaries, Pomponazzi and Telesius, and as a precursor of Bruno, on the one hand, of Sanchez and Montaigne, on the other.] G. M. Ferrari—L'idea nel bello musicale. Bibliographia, &c.

Archivio di Psichiatria, Scienze Penali ed Anthropologia Criminale per Servire allo Studio Dell'uomo Alienato e Delinquente. Vol. xiv. Fratelli Bocca Firenze, 1893. This journal, which has now

reached its fourteenth volume, is edited by Prof. Lombroso, and is one of the principal organs of the Italian school of criminal anthropologists. In the task of editorship, Prof. Lombroso is assisted by a staff of distinguished adherents, consisting, among others, of Baron Garofalo and Profs. Ferri, Morselli and Sciamanna. The full title of this publication conveys an adequate idea of its contents; but the most important articles in the numbers now before us are devoted to a study of the characteristics of female offenders. This circumstance is no doubt due to the recent publication of an important work by Lombroso and Ferrero on *La Donna Delinquente*. Dr. Roncoroni takes up the question afresh in two articles on the effect of sex on conduct, and after a careful study of the facts arrives at the general conclusion that the differences between men and women in the sphere of delinquency is to be attributed to differences in habits of life, in occupation, in physiological function, and also to the fact that the mind of woman is less highly evolved than the mind of man. Dr. Roncoroni bases this last conclusion on the circumstance that the cortical centres are less numerous, less complex and less co-ordinated among women than among men. In an article on the skull and jaw of female as compared with male offenders, Signor Ardu, after presenting us with a series of comparisons, concludes that the craniomandibular index is higher among male offenders, and lower among female offenders than is the case among the two sexes in the normal population. On the other hand, among offenders of both sexes, the jaw tends to weigh most among men, the skull among women. This article would have been much more valuable if the writer had told us whether the offenders he examined were offenders against property or offenders against the person. In all anthropological examinations of the criminal classes it is important to keep the two classes of offenders apart, inasmuch as the offences they perpetrate spring as a rule from different sets of motives and are effected by different methods. A Russian lady, Dr. Pauline Tarnowsky of St. Petersburg, deals with the organs of sense among female offenders. For the purpose of her inquiries she selected fifty female homicides, fifty habitual thieves, fifty fallen women, and fifty women of good repute. Her principal conclusions are that all the women examined had a slightly defective sense of taste, that the homicides had a rather contracted field of vision, that both the homicides and the fallen women were decidedly defective in the senses of smell and hearing, and that all classes were much alike as far as regards sensibility to pain. These observations are very interesting, but they must be accepted with the greatest reserve, owing to the unconquerable tendency of most criminals to deceive even when nothing is to be gained by it. A circumstance which lends probability to Dr. Tarnowsky's conclusions is that a high percentage of her offenders were affected in one form or another with physical degeneracy. Other articles on female offenders which we must be content merely to mention are contributed by Dr. Tarnowsky and several Italian investigators. The drift of all these contributions is to prove that the female offender, whether her offence takes the form of a criminal or of an immoral life, is afflicted with a much higher proportion of physical and mental anomalies than the rest of the female population.

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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

I.—ON THE NATURE OF ÆSTHETIC EMOTION.

By Bernard Bosanquet.

In raising the question, "What is Beauty?" we are admittedly dealing with very various phenomena. Some elements, it may be, are obviously given as common throughout the whole range of the beautiful; such, it might be alleged, are the formal feelings, those states of pleasure and pain which accompany ease or obstruction in the flow of ideas. But it will hardly be proposed to-day to restrict the feeling of beauty and the reverse to those simple elements; and I may rely on the support of Mr. Bain and other British psychologists for the view that in considering the nature of beauty it is necessary to examine a "circle of effects".[1] But while accepting this as a starting-point, I cannot but think it a self-contradiction for any science to acquiesce in a "plurality of causes"[2] as ultimate. "Plurality of causes" in Mill's sense, which I assume that Mr. Bain intends to adopt, means of course the recognition not of "a plurality of constituent factors"[3] or co-operating conditions resulting in a certain effect, but of a number of alternative causes from any one of which the same effect may spring.

[1] Bain, *Mental and Moral Science*, p. 292; *cf.* Sully, *Enc. Brit.*, i. 223, *Outlines of Psychology*, 538, or *Human Mind*, ii. 142 and 361. A comparison of these passages suggests that under pressure of the facts Mr. Sully has greatly modified his assent to Dugald Stewart's view.

[2] Bain, *l. c.*

[3] Sully, *Human Mind*, ii. 361.

But in the full scientific sense it is a contradiction to say that *a* and *b* are alternative causes of the effect *c*. Either a common element must be detected in *a* and *b*, or *c* must be divided into *d* and *e*. To surrender this postulate as a matter of principle is to abandon scientific method, although an incomplete analysis must of course pass through the stage of tracing alternative causes. It is quite possible that much which has been included in the object-matter of æsthetic science does not really belong to it. Many matters have been banished from it by the self-criticism of the science, and I admit, or rather maintain, that alien considerations are still improperly introduced. Nevertheless, within the science, and in considering a common element which somehow attaches to the circle of effects that are its data, there can be no ultimate plurality of causes as such. This is not postulating an unreal unity. It is only requiring that if we fail to establish a coherent principle we shall admit the failure.

I now desire to suggest that the central characteristic of æsthetic emotion is an aspect of the central characteristic of æsthetic presentation.

The above admission of a *prima facie* diversity in the species of beauty releases me from the attempt to identify any simple given feeling or intuition as one and the same throughout all of them. In every example of æsthetic emotion we are to go behind the first undiscriminating impression, if such there be, which finds utterance in the exclamation, "How beautiful!" and we are to attempt to trace a common root in phenomena of admitted variety.

This point of view, so far from being a difficulty to me, is all-important for my argument. It is possible, in considering the data of beauty, to start from a passive or from an active attitude. We may take a presentation more as it affects us, and ask what enjoyable feelings it awakens in us, when we regard ourselves as spectators or auditors to whom a perception comes *ab extra*. This has, as I think, been to a great extent the attitude of British psychologists. Or we may start from a more active frame of mind, such as without special gifts we may all experience in simple or familiar regions of beauty, while in its higher forms it is the productive or creative state which we attribute to the poet or artist. The commonest and most homely experience, together with attention to the moods demanded by the greatest and most genuine art, bear strongly in favour of the contention that this latter is the natural and normal condition of the mind in enjoying beauty. Empirical facts have been neglected, I

should maintain, not by those who support this view, but by those who oppose it. Wherever the mind of the workman has been appreciatively considered, wherever the simplest phases of art and their connexion with natural impulses of the ordinary human being have been drawn into account, there the explanation of beauty has tended to start from an active rather than a passive attitude of mind.[1]

The "plurality of causes," as a datum of æsthetic theory at starting, is in favour of this view. We do not, at the first feeling of a charm or pleasure in a beautiful thing, fully enter into its peculiar and individual character. And in the same degree we remain, no doubt, passive or receptive. But in proportion as through continued attention we are seized by the special delight or emotion which the perception in question has power to produce, so far, that is, as we appreciate the diversity of the beautiful in all the depth of its individuality, we depart from the attitude of the mere spectator, and assume that of the mind which is impelled to expression and utterance, the mind of the "maker". That is to say, we no longer feel ourselves in face of the presentation as something given *ab extra*, but rather enter into it as something which embodies for us the emotion that craves utterance. This emotion, of course, the presentation has itself in the commonest instances occasioned. But none the less, when we enjoy it fully, we seem to have made the presentation transparent or organic through and through, as the vehicle of our emotion. The simple facts of rhythm, metre, the dance and song, in their continuity with the formative impulse in all its phases, seem to me a mass of experience strongly favourable to this point of view. And I grant that any one impressed by experience of this kind is greatly influenced by it in his whole treatment of æsthetic science. Those who lean to regarding the mind as mainly receptive[2] in æsthetic enjoyment naturally tend to think of æsthetic science as an analysis of given pleasurable effects. They are therefore apt to explain a beautiful presentation by a congeries of pleasurable suggestions in a way which impresses others as hostile to the purity and coherence of æsthetic emotion. In as far as this danger is avoided, I think that every explanation of beauty reduces itself to expressiveness.

[1] It is impossible not to observe that the theories of the British psychological school date from just about the low water-mark of the æsthetic consciousness in this country. In saying this, of course I do not refer to living writers. The endurance of a theory is quite a different problem from that of its origin.

[2] Mr. Sully's insistence on this is noticeable, *Human Mind*, ii. 135-6.

I may point out also the serious dualism between beauty and fine art which arises from regarding the former as coincident in principle with pleasurable effect as such. For a good observer will hardly admit that fine art, of the greater periods at any rate, makes any effect of this kind its purpose, and though it may be said with plausibility that beauty is the result but not the aim of art, still it is a serious matter to define the beautiful in a way that wholly neglects the essence of the artist's impulse.[1]

I suggest therefore as the most fundamental and universal feature, from which all the common characteristics of æsthetic emotion may be deduced, the simple fact that it is expressed. And I propose to consider what consequences affecting its nature may be derived from this condition.

An ambiguity meets us at once. All emotion is expressed; perhaps indeed emotion may be found to consist in little more than the psychical side of the movements or organic changes which in part constitute its expression. For plainly there is no distinction of principle between an inward physical effect and one which happens to be visible or audible. So, if all emotion is expressed, in virtue of effects which either are external or differ in no essentials from external effects, it would seem that expression is no differentia of æsthetic emotion.

Here no doubt we must admit a gradation, and the true nature of expression may be very conveniently taken up from this point of junction. There is plainly a distinction of principle between the mere physical side of the bodily resonance by which an emotion discharges itself, and any forms of action that aim at prolonging the resonance of the emotion for the sake of the enjoyment it affords. "Jumping for joy" may pass into the dance; the manifestation of anger may pass into poetical invective; love and admiration at first displayed by look and attitude constantly lead up to a graphical or poetical representation of their object. An interesting remark arises at this point. Expression in the form of an object (including a definite action) seems to be the only healthy means by which feeling can be purposely dwelt upon. To brood over feelings because we enjoy doing so, without trying to embody them, is the note of sentimentalism. In making the distinction however between

[1] See Volkmann, *Lehrbuch d. Psych.*, ii. 359. Volkmann accepts this dualism, and thinks that it is confirmed by Greek æsthetic, finding, *e.g.*, a complete severance between beauty and art in Plato. But the truth is the other way. The art which Plato *rejected* was that which he could *not* bring under an expressive theory of beauty.

mere discharge of feeling, and its expression as such, we must not lay exclusive stress on the involuntary or voluntary nature of the means adopted. When rhythmical, musical, or metrical form begins to qualify the utterance of joy, grief, or anger, it is plain that new elements of presentation are being employed as a way of dwelling upon the emotion, whether the agent is conscious of any such purpose or no. Emotion in such a case is not merely discharged but expressed; that is to say, the original feeling is prolonged and accentuated by help of positive symbols and presentations, so that the mind may dwell upon it, not merely brooding over it, but portraying its nature in more or less definite actions and perceptions. Here we may fairly say that we no longer have mere discharge, or accidental expression through mere discharge, but expression as such, or expression for expression's sake.

Now in such expression or embodiment of an emotion, how is the expression related to the emotion? How are the presentative elements of rhythm, metre and musical sound related to the emotion of joy or anger which finds utterance through them? The primary answer appears to be that the two sides cannot be separated; the emotion simply is the whole presentation, including both its sensuous and its ideal elements, in so far as it qualifies the pleasure or pure feeling which accompanies it. The individual action or object and the emotion which is expressed or embodied in it are psychologically speaking precise correlatives, and no question can intelligibly be asked which implies that the one could be given to a normal mind without the other. This is an important point, because it saves us from a dualism which has very absurd results. We speak in general terms of a content of presentation as if it, the same content—death, for example—could be treated or embodied so as to be the object of different emotions. This is true if we mean to contrast the abstraction "death" with the various ways in which it may be concretely brought before us, but not otherwise. In being differently "treated," sadly, humorously, indignantly, the content is differently filled in, is itself modified by the manner of presentation, and, as object of different emotions, does not remain the same content. We cannot say, "Here is the content, and now we will add the 'expression,' or elements which more particularly correspond to the emotion": the content, so far as it goes, actually in that degree is or constitutes the expression of emotion, being simply that which is felt, because it must be felt, in a certain way.

Even an abstract idea, death, ruin, fate, triumph, has no doubt its correlative element of emotion, a way in which it is felt; but so far as the idea is indeterminate, the feeling, considered as qualified only by that idea, is also indeterminate, while if the idea is individualised the feeling which it qualifies is *ipso facto* individualised along with it.

Feeling then is only articulate through that of which it is the feeling, *viz.*, a presentation more or less individual, and every presentation has its correlative emotion (pure feeling as qualified by the presentation itself), and if this emotion appears to be indeterminate this is merely because the presentation in question, being highly abstract, is not sufficient to determine the character of an entire psychosis, and is in fact variously filled in by the accidental content of the mind from moment to moment. None but a highly individual presentation, it would therefore seem, can be the expression of such an emotion as constitutes a principal or dominant element in any entire psychosis. Yet there is no complete contrast between an abstract idea and the expression of emotion, but only between an abstract idea as an expression of slightly determinate emotion, and an individual idea as an expression of highly determinate emotion. The nexus between presentation and emotion is then, speaking generally, that such and such a presentation must be felt, by a normal mind, in such and such a way. All that we can do by analysis to explain a nexus of this kind would seem to consist in drawing out the content which is implied in the more individual among the presented elements—say a "springing curve," or a certain sequence of notes—and showing how this content is related to larger ideal characters which it modifies and reinforces. When this has been done, so far as it can be done, it will be found that the pure feeling accompanying the whole—its degree of pleasure or pain—has also, in the same measure, been accounted for. Whether we start from emotion or from content, what we are analysing is in the last resort the same matter, the relation of content, as expressed, to life; this of course including the success or failure of expression which constitutes, as we have seen, a modification of the content expressed.

If this is so, it would seem that every emotion exists only as correlative to its expression; or that strictly speaking we do not first have an emotion and then proceed to express it; but that an emotion assumes its character, or becomes what it is, through the mode and degree of its expression; and therefore that æsthetic emotion first arises in and is

essentially constituted by, expression for expression's sake, or in other words, when its discharge takes the form of a positive production or action which has no purpose beyond that of uttering the content of our feeling.

The modification which a feeling necessarily goes through in being 'expressed' in the sense thus suggested, has never, if I am right, been more fruitfully analysed than in Aristotle's account of tragic emotion, as explained and expanded by Lessing and Bernays. This interpretation, with unessential modifications, is accepted, so far as I know, by the best judges to-day.[1] Omitting detail, the principle comes to this. There is a form of art called Tragedy which produces pleasure by means of two painful emotions, pity and fear. How this is possible is a problem that answers itself when we consider the conditions of artistic expression or representation. By a typical portrayal of human life in some story that forms an individual whole, the feelings in question are divested of their personal reference, and acquire a content drawn from what is serious and noteworthy in humanity, and thus alone, it seems clearly to be Aristotle's view, can their quintessence be fully uttered and drawn out and find its pleasurable discharge free from morbid elements of mere shock and personal sensibility. The connexion of pity and fear, which is the centre of his doctrine, really indicates that fear, for art, is a fear idealised by expression or objective embodiment, while free utterance is not aided but lamed and obstructed by any intrusion of the dumb shock of personal terror. Thus then, and thus alone, can fear be made an æsthetic emotion, a source of artistic enjoyment or the pleasure of tragedy. It is not, and this is a fundamental point, it is not merely that the emotion is "refined," in the sense that its bodily resonance is rendered less intense. A modified resonance will attend a modified emotion, but the intensity of feeling is not a question of principle in relation to its æsthetic character. The æsthetic character lies in the dwelling on and drawing out the feeling, in its fullest reference, by help of a definite presentation which accents its *nature*. Refinement, in the sense of mere diminution of intensity, cannot make an unæsthetic emotion into one which is æsthetic. Sensuous pleasure as such, however remotely suggested, is no more æsthetic than personal terror.

The accepted distinctions between the æsthetic and other points of view might be easily read off from the foregoing

[1] See Prof. S. H. Butcher's *Aspects of the Greek Genius*, 1st edition; and Susemihl, *Aristotle's Poetics*, Introduction.

account. That which is "expression for expression's sake" is *ex hypothesi* secured from subservience to other ends whether ethical, intellectual or sensual.

But a word remains to be said about the limit imposed on the factors of æsthetic emotion by the demand that it shall be expressed. "How much," it may be asked, "is in fact expressed by any given presentation? Is there any limit? Does it express whatever any one feels when it comes before him?" Here we must recur to the contrast of abstract contents and contents individualised by concrete presentation.

"Two bits of wood nailed crosswise" (Browning) may suggest anything from the spokes of a wheel to the usual associations of a cross. Such a presentation, it may be urged, is capable of calling up any conceivable emotion. And no doubt this is so, but only because it is capable of calling up any conceivable presentation. It is not that the same presented content may call up different emotions, but that a content indeterminate in itself may be differently determined in the context of the mind. The emotions which may pass through the mind on seeing so bare a symbol, are not, in relation to it as it stands, "expressed" or "embodied" emotions, and therefore cannot qualify it æsthetically, and are not, so far as their suggestion by it is concerned, æsthetic emotions. Of course if they come into the mind with poetical or other imaginative matter, of the nature of expressive embodiment, that is accidental relatively to the seeing of the wooden cross, which alone was in question. Emotion brought up by mere associated content, irrelevant to a real or universal connexion with presented elements, is not æsthetic emotion.

A more individualised presentation than that just taken as an example has more power to ensure a determinate mode of feeling, in other words, is more nearly such as by a normal mind must necessarily be felt in a particular way. Therefore, although no presentation can be so imperiously dominant as wholly to exclude accidents of feeling in different persons, yet as a matter of principle plurality of causes—the production of the same emotion by different contents—is impossible. Cause and effect are shown to be, as strictly they always must be, precisely correlative; and although, or because, individual consequents correspond to individual causes, there can be no common property residing in or attendant on the "circle of effects" which is not matched by a common property pervading the diversity of causes. Thus it is not true that presentations, sharing no identical

property, can be alike qualified as beautiful by emotions the identical element of which in that case would be accidental, or independent of the definite presentative elements which really make them what they are.

The attempt to determine the sources of beauty by examining the pleasurable feelings liable to be suggested by beautiful objects or actions, has, of course, led to many valuable observations respecting the connexion of expression with feeling. As a method of æsthetic science, however, I cannot but think it disabled by the general defect of associationism, that is to say, the attempt to explain general connexions of content by the chance conjunction of particular experiences. This leads, if I am right, to two errors of principle.

The first of these errors is the obliteration of the line between what is beautiful, and what interests me personally. Though undoubtedly difficult to draw in practice, this distinction must surely be maintained in principle and on the whole. No doubt I may have associated experiences which cause me to enjoy the croaking of frogs[1] or the cawing of rooks,[2] but does that make them beautiful? Are there elements within the sounds themselves which in any sense or by any kind of analysis can be said to be symbolic of country life? My old travelling trunk reminds me delightfully of many pleasant experiences, but does that make it beautiful? Surely even the "ideal" element of beauty must be founded in some universal connexion, indicated within the four corners of the beautiful object, and not on a wholly unanalysed conjunction, which, as taken, is an accident of my personal history.

This first error, however, though as I am convinced a matter of principle, is also, just round the margin of the beautiful, a matter of degree. But the second, which is an aggravated case of the first, seems to me an absolute reversal of the æsthetic point of view. It arises when among the pleasurable feelings brought up by association are counted, however indirectly, the dumb gratifications of sense.

Refinement of allusion, as I tried to show above, does not help the matter so long as it merely means disguised or remote suggestion. The view which Bain[3] for example finds him-

[1] *Cf.* Ward in *Encycl. Brit.*, art. "Psychology".

[2] Sully, *Human Mind*, ii. 78. This enjoyment is not ranked under the head "Æsthetic," but I do not see how it is differentiated.

[3] *Emotions and Will*, 3rd ed., p. 227. "The ideal representation of the sensual pleasures comes strictly under the province of Art, but, for prudential and moral reasons, is kept within narrow limits, varying in different ages and countries."

self obliged to take of the range of art in these respects, restricting it, as I understand, by mere convention, and by no principle,[1] is a very serious matter indeed. "But," it may be retorted, "if these gratifications can be expressed in art, according to your own conceptions they are æsthetic; while if they cannot be expressed, *cadit quæstio*." Here, however, we must bear in mind that there is such a thing as bad art, and that this largely consists of art which leans over and strains to do that which it cannot, by the law of its existence, really achieve. In presenting the pure sensuous gratifications art cannot indeed achieve expression; but it may, and thoroughly vicious art most frequently does, attain suggestion. Let us think of the mere sensuous gratification of drinking to intoxication. No artistic presentation will reproduce the taste and the peculiar excitement which constitute this sensuous enjoyment. Nothing will do this but the process itself. But it can of course be easily suggested or recalled in painting or poetry through its accompaniments or its effects. Now to treat such reference as a suggestion of an associated pleasure, and therefore as an element in beauty, seems to me not a blunder of taste but a contradiction in principle. It is a sin against the independence or purity (of course not meant in a moral sense) of æsthetic form, which is stated (*e.g.*, by Schiller) as the law that æsthetic pleasure as such is incapable of enhancement by the real existence of the object represented. This is involved in the formula of "expression for expression's sake" and on this or other grounds commonly accepted. On the other hand, it is quite in accordance with this law that those elements in passion or intoxication, which are emphasised when the emotion has been made objective in a presentation, form that quintessence of feeling which finds utterance in the true poetry of love or wine. This is wholly different in principle from something which draws its pleasurableness from a faint reproduction of stronger actual pleasures. It is better and greater and deeper than the ordinary feelings of the normal man, and is not a mere suggestion of them. And it is noteworthy that though the art or poetry of passion is not to be judged by ethical standards, yet in practice morality has little to fear from it. But this is not at all the case with the art which depends on refined suggestion.

The theory which relies on expressiveness is no doubt confronted with a certain difficulty in dealing with the splendours

[1] For, as Bain points out, the mere requirement of universality (construed as generality) does not exclude sensuous *suggestion* in art or nature.

of colour or tone when wholly isolated (if this is ever true), or at any rate very slightly moulded by arrangement and combination. The inquiry at this point is one of extreme interest and difficulty, involving a good deal of criticism upon alleged facts of æsthetic perception. It is impossible to go into it in detail on the present occasion; but I will indicate the class of considerations which induce me to think that this region of phenomena is capable of furnishing a signal example in favour of the point of view which I have been urging. In the first place, I do not think that difficulties of distinction which meet us in tracing a certain element to its admitted vanishing-point are ever very strong arguments against a continuity well established in clearer phases. The lower limit of morality or of judgment shows closely parallel uncertainties. Does beauty, traced down to single colours or tones, suddenly become mere pleasantness to sense? Does morality, traced down to the actions of a savage, suddenly become mere impulse or mere dread of a superior? There is always the possibility that the element which is being tracked tends to vanish in something else, but that in as far as it survives at all, it retains the essential nature which it displayed throughout. Secondly then, starting from this idea, I should point to the improbability that sensations of the æsthetic senses are devoid of the pleasurable element, whatever it is, which characterises all the sensations acknowledged to be unæsthetic—taste, warmth, touch, and the like. It is therefore extremely likely, *prima facie*, that the higher sensations have in some sort a double aspect, adding to the pleasurable quality of the "lower" sensations a source of pleasure in which as a rule those lower sensations do not share. It might further be pointed out that this higher or, at least, peculiar pleasure does not seem to attend the sensations of eye and ear in proportion as they give the gratification which is most analogous to what we roughly call a "physical pleasure," but seems rather to increase as they leave this character aside, and assume degrees and combinations which are not of interest to untrained perception. Again, by a correlative set of instances it might be shown that when, by exception, something which recalls æsthetic pleasure attaches to sensations of the "lower" senses, this does not consist in their "physical" pleasantness or any modification of it, but in some chance relation by which they are enabled to mimic the expressive power of the æsthetic sensations. And lastly, if I am attacked with direct instances and challenged to say whether my æsthetic enjoyment does not actually

depend in many prominent cases on the purely sensuous quality of a yellow or a red, a trumpet-note or violin-tone, I reply with absolute conviction, so far as my own experience goes, that the mind undoubtedly revels in the splendours of the sensation, but always in the way of plunging into its peculiarity, of dwelling on and drawing out that which makes it what it is, so as very soon to pass into the beauty of combination, even if this is not, owing to constant experience (and, in sound, to its composite nature), really inherent in the whole process from the first. I maintain, then, that even an enjoyable colour is not a mute gratification of sense, but is felt as an utterance. We dwell on its nature, but it is its *nature*, positive though not definable, on which we dwell. As Mr. Gurney felt with melodies, I feel with colours; they say something to me, though if I could know what they say instead of seeing it they would be colours no longer. The difference between the lower sensations and the "æsthetic" sensations is so universally accepted that I think I am entitled to press it home as I have done, although I am not prepared with a *rationale* of it if I am bound to consider both as sensations pure and simple. My suggestions rather point to the conception that it is not *as* sensations that sounds or sights can have æsthetic value; and any one who affirms that the whole pleasurable effect of bright light on a young child is of a nature truly continuous with æsthetic feeling proper, is bound, I think, to show the difference at that early stage between pleasure in light and pleasure in warmth or softness. I should not shrink, on the other hand, from admitting that in the sensations which are commonly classed as unæsthetic there is a vanishing element of æsthetic feeling in so far as pleasure in them arises from appreciation of a distinct individual quality which leads us to dwell upon its nature with a more or less genuine interest.[1]

Inherited associations need hardly be discussed until they are shown to be a *vera causa* in the definite form which alone could make them serviceable in explaining æsthetic emotion. We are born with many pre-dispositions; and a few more, unless singularly positive and definite, would merely be an addition to the general stock of material out of which our mind organises itself. A definite inherited forest-emotion is imaginable, but could it ever be verifiable among the strong and various components which are easily seen to enter into our feeling for woodland scenery and

[1] Cp. Dr. Middleton's remarks on wines in *The Egoist*.

surroundings? Would it not necessarily be so overlaid and defined by other matter as to be of little more explanatory value than our primitive sensitiveness to light or to musical sound in general? A superfluous hypothesis, not shown to rest on a *vera causa*, can hardly claim attention.

Much of the foregoing argument, it may be thought, could be summed up by saying that æsthetic emotion is "impersonal". But the word is a dangerous one, and gives rise, I think, to serious fallacies in art-theory to-day. I should prefer to borrow the expression of a recent writer on a different subject, and call it "super-personal". In becoming æsthetic, emotion does not become something less but something more; it does not forfeit the depth of personality, but only throws off its narrowness, and modifies it by an enlargement which is also a reinforcement. The impersonality of art has recently come to be thought of as approaching a critical or intellectual attitude. This I take to be a grave error, having its root in a confusion between the existence of feeling in a person—which is necessary to its existence at all—and the restriction of its content to his narrowest self, which the nature of feeling or of its qualifying accompaniments does not in any way demand.

I suggest then that æsthetic emotion is emotion which in creating, or adapting itself to, its pure expression—"pure" as expression for expression's sake—has undergone a definite change of character. It has become "objective" in the sense of being attached to presentations which are as a rule highly individualised and are related to entire psychoses much as abstract language is related to abstract thought. Its impersonal or super-personal character is deducible from these conditions; while the typical aspect of the pleasure which attends it must be looked for within the general field of that enjoyment which accompanies the discharge of any and every emotion. It is however, as æsthetic, confined to cases where, in the discharge, there suggest themselves presentative elements ideal or sensuous, or in perfect examples both together in complete fusion, such as sustain and justify and individualise the main emotion by charging it with the deeper and wider ideal contents of the self. I start from such simple comparisons as that of the anger of a common man, which in serious cases may impart a certain dignity to his bearing and sometimes a certain nobility to his expressions, with the indignation of Burns when he wrote the epigrams on the Earl of Galloway, or, at a higher level, with Milton's sonnet on the Vaudois or Dante's satire on Florence in the *Inferno*. If we follow such instances

into detail, noting how passion tends to purify and harmonise its utterance as its content more deeply involves the issues of human life, we shall, I believe, be on the right track of æsthetic analysis. All modes of pleasurable suggestion which truly fall within æsthetic limits, can be shown, I think, to be organic to such self-utterance as this, and we begin at the wrong end when we reckon them up as æsthetic elements because *per se* suggestions of pleasure.[1] On the contrary, their pleasurableness will be found to centre in some property or condition—as, for example, in the condition of "efficient attention"—which makes them conducive to expressiveness.

[1] See this point trenchantly stated by Ward, *Encycl. Brit.*, art. "Psychology," p. 70, col. 1.

II.—FREEDOM, RESPONSIBILITY AND PUNISHMENT.

By James H. Hyslop.

Each of these subjects is large enough to occupy more space than can be allotted to an article in the columns of Mind; and for this reason it might seem a little audacious to announce them as matter for a single short discussion. Were I to attempt anything like a scientific treatment of them, either singly or together, I should not venture upon all of them within the limits at my command. The apology, however, for taking them together in a single short article is the fact that I intend rather to investigate and analyse their relation to each other. Assuming that their larger relations to the theory of Ethics are well understood, I may well examine their mutual relations within the limits afforded here. Hence after a careful definition of the terms as I shall use them, I may be able to dispose of the problem briefly enough.

I shall use the term "freedom" to describe three different conditions of the mental subject: (*a*) Exemption from political and physical restraints; (*b*) Autonomy, spontaneity, or the subject as merely an originating cause of its action; (*c*) Velleity, or capacity for deliberative and alternative choice. In the first of these senses freedom may undoubtedly exist, whatever we may think of the other two forms of it, and hence from the unanimity existing on this point, and from the fact that the dispute centres about the psychological, as opposed to the physico-political question, I need not lay any stress upon the first conceptions. There remain for me, therefore, two alternatives: *First*, I can adopt the term "freedom" to denote the second condition of the subject, and that only when it is conceived merely as the cause of its own action, but not capable of choice. Whether a conscious being is always or ever so is another question. But I have found the term used historically by such writers as Plato, Lactantius, Spinoza, Hume, &c., to denote self-movement. This meaning would make the idea absolutely simple, and distinguish it sharply from that conception where the subject was not only self-determined but also equally capable of doing otherwise. The object, of course, is to distinguish between the latter condition as a *ratio cognoscendi*, but not the *ratio essendi*, of autonomy or

spontaneity, and as the *ratio essendi* of responsibility, which describes the subject's liability to moral praise or blame. *Second*, on the other hand, I might adopt the broader meaning in which the term is treated as identical with or including responsibility. In this case it would be *complex*, and hence all argument regarding it would have to treat it so. If this were adopted then the argument regarding the "freedom of the will" would have to consider both elements or conditions; namely, spontaneity or autonomy *and* responsibility, and it could not be determined until both conditions were proved. Most discussions have really stopped short with the proof of the first, or at least with the explanation of how it was either possible, or necessary to a moral theory, while the great difficulty was to conceive a man as governed by the strongest motive and yet equally capable of an alternative choice. It was conceivable that a man could be the cause of certain actions, but not capable of doing any others, and hence however he might be regarded or treated as their cause, he could not be a subject of praise or blame. The latter characteristic is necessary to his responsibility, as I had conceived it.

The great objection to the limited conception of "freedom" as denoting only psycho-centric causality, but not equal alternatives in volition, is that this idea may be true, but has no importance; that the real problem of ethics is to know whether man is responsible or not. I should unhesitatingly admit the conclusiveness of this objection, if all controversialists in this matter of free will were to admit that their conception of "freedom" was complex, and that at least two elements must be established in order to present a complete theory of it, while one of those elements, that of autonomy, is sufficient to justify the treatment of man as the cause of certain actions, whether he be able to do the opposite or not. It is true that the kind of "freedom" which I have advocated elsewhere[1] does not have the importance attached to the general theory of that doctrine in ethics; all of which was admitted with the assertion that what was not possessed by "freedom" was transferred to responsibility. This disposal of the case divided the whole importance of the problem, as ordinarily conceived, between the two elements of "freedom" in the complex conception. But it did not remove all ethical importance from the simple conception of "freedom" as psychic causality. It merely limited that importance. From the very nature of the case

[1] *Philosophic Review*, July, 1892.

I had to use "freedom" in either the simple or the complex sense. If I used it in the complex sense, I should have included a problem which it was not the purpose of that article to discuss, and hence the argument would have been irrelevant. But if I used it in the narrower sense, I could avoid entangling myself with the matter of moral responsibility and establish a position which is the condition of *preventive* methods of "punishment"

I have several objects in my analysis. *First*, to distinguish between the *ratio cognoscendi* and the *ratio essendi* of such problems. *Second*, to separate psychic causality from the conditions of responsibility in such a way that the former might be true without implying the latter, thus opening the way to a denial of responsibility, if it could be shown that man was not able to choose otherwise than he does. *Third*, to establish a condition which will afford a basis for an important distinction between preventive and corrective "punishment". In the article mentioned I discussed the first of these problems, and a part of the second. In the present essay I have to discuss the remainder of them. I shall continue for convenience to use the term "freedom" in its limited sense, although not denying others the right to use it otherwise and to include responsibility. For the sake of the importance attaching to the difference between the inner causality of an act, and the equal ability to do the opposite, I must contrast "freedom" and responsibility, though I shall maintain that the latter implies the former. This is to say that I must have two terms for expressing radically different conditions affecting ethical theories, and hence when it is no longer necessary to take account of those differences we may consider the proprieties of language. The concession to others of the right to use the term "freedom" in the complex sense, provided that they recognise the two distinct principles enunciated, is, on the one hand, a sufficient atonement on my part for any imputed violations of traditional meaning, while, on the other hand, *my proviso* is a legitimate demand to make upon them for their assumption of the complex idea.

Taking the conception "freedom" to denote merely causal as distinguished from deliberative agency, it is proposed to contrast it with responsibility, while asserting that the former is implied in the latter whenever it is supposed or asserted. This is to say that freedom may exist without responsibility, but that responsibility cannot exist without freedom or psycho-centric causality; such a conception involves in the discussion of the present problem all the

elements previously mentioned in our doctrine of freedom, *plus* such a presentation of facts and principles as will explain the possibility of moral responsibility. As a consequence we shall have to canvass somewhat the question of inhibition, its nature and influence. This will be designed to show the relation of inhibition to responsibility, and the various theories of punishment.

But we can discuss the matter of responsibility intelligently only when it has been adequately defined. In general it is regarded as equivalent to accountability, or liability to praise or blame. But this is, after all, a meaning somewhat narrower than it often obtains. The full scope of its meaning will be best seen in the fact that general usage, whether consciously or unconsciously, describes two very different kinds of responsibility. We may divide them into *causal* responsibility and *moral* responsibility. This is to say, that we often speak of a person or thing as "responsible" for a given event when we mean no more than the fact that the agent is the cause of the event, and must be dealt with as such. This meaning, it will be seen, is identical with our idea of merely free or psychic causality, and undoubtedly explains why the two conceptions, freedom and responsibility, became convertible. But what we have here chosen to call "moral" responsibility for the sake of a distinction describes the condition of a man who can act otherwise than he actually does act; that is, possesses alternative choice. The distinction, therefore, appears merely as that which we have chosen to embody in the terms free causality and responsibility. We shall consequently use the term responsibility in the "moral" sense defined. As regards the theory of punishment, we shall take up that subject when we have determined the question of responsibility.

In order to comprehend the whole range of inhibitive action and its relation to the problem before us we must follow it through all its stages. We must first recall, however, its general nature. It may be defined as *any action of arrest exercised by one centre or function upon another.* This may take two forms, which, for the lack of better terms, may be called physiological and psychological. The former is merely the inhibition exercised by one nervous centre upon another without our being able to say that the effect was due to the absorption of energy by consciousness in one direction rather than another. In other words, physiological inhibition is unconscious, and represents neural functions apart from the presence of consciousness.

This is illustrated in such cases as the arrest of the heart's action by disturbances in the pneumogastric nerve ; in intestinal movements by interferences with the splanchnic nerve ; and in respiration by interferences with the superior laryngeal nerve. " Similarly," says Foster, " the vaso-motor centre in the medulla may, by impulses arriving along various afferent tracts, be inhibited, during which the muscular walls of various arteries are relaxed ; or augmented, whereby the tonic contraction of various arteries is increased." In general, then, we may find the activity of any centre either inhibited or stimulated by the activity of another. Psychological inhibition will be the arresting power of consciousness in one direction against the exercise either of neural or conscious action in another direction. For instance, the concentration of attention upon something in the visual field will diminish the intensity of a sensation in the tactual field, or the remembered experience of pain will check the tendency of a present consciousness to issue in muscular action. A better illustration is probably the fact that intense mental activity may arrest action of the stomach, the circulation of the blood to the extremities, or muscular action. The idea may be carried into the higher intellectual field where one form of mental occupation may prevent action in another, such as rational processes limiting the exercise of the emotional, &c. It is not meant that this kind of inhibition is essentially different from physiological arrest. The two kinds may be equally neural functions, or they may be distinct. It is not necessary for us to determine which alternative is correct. It may be that the basis of the so-called psychological arrest is that of physiological inhibition. We shall not dispute this conception of it. We are distinguishing between the two forms for purposes which will appear when discussing the complications of responsibility, and systems of punishment.

Now, to start with man as merely an organism for exhibiting reflex actions, it will be apparent that we can consider him as neither free nor responsible. To be free the initiative of volition must be conscious or ideational, and to be responsible in a perfect degree the agent must both consciously initiate the volition and be capable of acting otherwise. In reflex actions neither of these conditions exist. If, therefore, man is only a reflex centre his freedom and responsibility are out of the question. He is a passive organism, awaiting the impulse of external stimulus. Whatever actions, therefore, are mediated through him under this conception would have to be treated in terms of their

external causes. Remove the stimuli and the actions would not occur. There would be no need of dealing with him in this case because he would never act except under stimulus. But it is otherwise if we consider him as the subject of states of consciousness which are assumed to be capable of initiating volitions independently of the reflexes, which are unconscious reactions. These states may be awakened by external stimuli, and they may or may not immediately issue in volition. This is not to be determined at present. We are considering them merely as antecedents and efficient causes of volitions other than those causes which produce reflex muscular actions. As indicated in the previous statements, the matter, power and direction of consciousness are not determined by the external stimulus. They are determined by the nature of the subject; and hence the effect in volition will not be an arbitrary and mechanical reaction like the reflexes, but will be what we call rational, conscious, purposive, &c., in a greater or less degree. It will be an action indicating either a different kind of antecedent from that of reflex action, or additional antecedents involving subjective as well as objective elements, the objective furnishing the occasion and the subjective the initiative influences.

Now, man is the subject both of reflex actions and of states of consciousness; and since all students of his history, both in regard to his individual origin, and his development from a remote simple organism, maintain that the first functions he exercises are merely reflex, the question may be raised how he ever gets beyond them. Nor is this a question merely to know how he ever becomes conscious, but to know how consciousness can ever initiate actions when it involves more time for its occurrence than the reflexes. The same motor organism has to be employed for both forms of action, and if all were to follow external stimuli immediately, consciousness could not be their initiative unless it had time to arise and exercise its motive efficiency before or independently of the tendencies to reflex action. How can it ever do so?

An important fact to note in this question, in order to ascertain how the nexus between stimulus and muscular actions may be broken, is the general law that *reflex reaction* time is shorter than *cerebral reaction* time. That is, reactions of the spinal cord occupy less time than reactions of the higher brain centres, the latter being supposed to exercise the functions of intelligence. This being the case, and if the reflex centres must act at once upon stimulus, the

muscular action must occur before consciousness is awakened; and hence, whatever its states may be able to do after they arise, the deed may be done which will make all the volitions of consciousness nugatory and useless. But it is precisely here that the machinery of inhibition can be invoked to arrest the reflexes and allow conscious states to mediate between stimulus and muscular action. For instance, it has been shown by actual experiment among animals that the very presence of the cerebral mass acts upon the reflexes of the spinal cord to retard them; that is, to increase reaction time. The normal condition, therefore, is one of physiological inhibition. Again, it is known that in sleep reaction time is quickened, and in the conscious state it is slower. This is a case of what I have called psychological inhibition. It represents the arresting influence of consciousness upon lower centres, either by virtue of its inferior power or because it absorbs energy which would otherwise be expended in the reflex centres. But in whatever manner it may be said to act it produces a retardation of reaction time. This might not be sufficient in any case to compensate for the difference between reaction and cerebral reflexes. But whether it is or not does not require to be determined as long as the reflex centres, compared with the cerebral, are concerned only with organic functions. For it is not a question to decide how consciousness can ever usurp the functions of the organic system, but how it can ever find a chance to exercise motive efficiency before some form of muscular response to stimulus has made its action useless. This will appear in a moment. In our illustrations we were interested only in establishing the general fact and the wide range of inhibition as an arresting influence, whether in the case cited it actually compensated or not for the difference between reflex and cerebral reaction time.

But while the same principle operates, the whole case is changed when we come to consider the inhibitions of the higher intellectual centres upon the tendencies of sensation and emotion to issue in action immediately upon the occurrence of stimulus. The difference in time between them, if it exists or is likely to exist, is overcome in these instances so as to give ideational activity a chance to produce volitions which may be different from instinctive reactions upon impressions. Inhibition, however, of some kind is involved whenever a sensation or emotion has its motor impulse arrested. The reason for this supposition appears in the following important facts. We are told by modern psychologists that it is of the very nature of consciousness to

influence the muscular system; and hence when any emotional or impulsive state is awakened, not to say anything of ordinary sensations, an action should follow, and would follow, but for arresting agencies due either to physiological influences in other centres or to simultaneous elements of consciousness (psychological inhibitions) other than the particular sensation, emotion or impulse. For instance, pain has an inhibitory effect on muscular action, and so also the idea of pain. The child putting its hand into the fire is an illustration. The presence of pain immediately arrests muscular tension. Then if tempted at some other time to try the same experiment, the memory of the past experience, or the idea of a past pain, with the consciousness of its imminent re-occurrence, will arrest all tendencies to movement caused by the curiosity of the previous moment. One state of consciousness supplants another. In this and all similar cases the natural difference between the time required to act on the occurrence of the stimulus and the time for the inhibitory influence to prevent an immediate action is in some way overcome, so that a state other than the first consciousness can determine the form of action. This may be effected by supposing that the inertia of the muscular system is great enough to prevent any reaction until the inhibiting force has time to supplant an antecedent mental state. Or we may suppose that the difference between the mental time of a given consciousness and an associated one is not great enough to permit the completion of a muscular act before the latter arrests the act. Or again we might suppose that among the very earliest experiences the subject contracts the habit of delayed action until associated ideas can arise, so that there is more or less of a perpetual deliberative tension (unconscious, no doubt, and it may be physiological) which allows association time to take the place of the first spontaneous tendency to action. But however this may be, it is not necessary to decide. We know the fact that a present consciousness may be checked in its muscular tension by an associated consciousness representing a past experience. A more deliberative tendency may have been given the organism by previous experiences, and this may be inherited, so that purely organic arrest may come in as an agent aiding the occurrence of supplanting a present by an associated consciousness. But whether or not, simple mental time may be overcome by association time, so that volition may follow the latter rather than the former.

It is by this conception of the matter that we have en-

deavoured in a brief manner to establish the origin of the "motive" which conditions a free spontaneity, or ideational activity. It is shown that inhibition might be necessary to break the nexus between stimulus and motor reaction and to make deliberation possible. That matter does not require to be gone over again. But we must recall the remark that deliberation is only a *ratio cognoscendi*, not a *ratio essendi* of freedom. What we have hereafter to show is the fact that it is the *ratio essendi* of responsibility. At present we must consider the importance of the former fact. In making deliberation only a *proof* of freedom we have provided for the supposition that action may be free even when the subject does not deliberate; that is, when this act is an immediate consequence of a sensation, emotion or any ideational state occurring as the direct response to stimulus. A sensation and an emotion, even if they be regarded as psychical stimuli, that is, mediate agencies between external impressions and volitions, are states of consciousness, and to that extent involve the action of ideational functions: only they are not deliberative. They contain in themselves the conception of an end more or less distinct, and so enable action to be determined by the ideational element, at least in its direction, rather than by the stimulus. But we should hardly regard such actions as responsible. They are too much dependent upon the contingencies of external circumstances, on the one hand, and the contingency of mental moods, on the other. The subject may well be regarded as the principal cause, on the ground that the motive is an idea of an end not furnished by the stimulus. But if he must act at once on the occurrence of a mental state, and nothing can occur to arrest the efficiency of this state, or produce something of a mental equilibrium, he does not possess that ability to do otherwise which is essential to responsibility, although the cause of the particular act initiated may be ideational rather than external. Or to state the same thought in another form, the mere fact that an act has an ideational origin does not make it a responsible act, because there is nothing to prevent such motives from acting in a manner much like reflexes. That is to say, the occurrence of a particular idea may be either the result of any impression whatever, or so invariable and free from arrest as to issue in volition without reflexion. The connexion between the external stimulus and the volition would be so close as to exclude anything like deliberation or that comprehension of the situation which prevents consciousness from being wholly a mechanical effect of impressions.

Hence when consciousness cannot break the nexus between stimulus and motor reaction, however much it may be the cause of the particular act, the agent cannot be regarded as responsible for the result.

Let us take some illustrations of this conception of the matter. Experiments in the measurement of reaction time often show an interesting quasi-mechanical effect of stimulus. The tension and attention of the mind upon an expected impression often lead to a volition the very opposite of the one intended by the operator to follow the stimulus. It seems that the mind is in the condition of a delicate spring which almost any impulse may set into motion. For the time, it is a kind of reflex organism in which, without waiting for perception to rise into apperception, it explodes into volition out of proportion to what a deliberative being would do. This is due to the setting which consciousness has for the moment, and perhaps the suspension of inhibitive influences sufficiently to allow the transition from stimulus to action without the mediation of deliberative ideation. Now, although such an act is intentional and free (that is, caused by the subject), for the reason that the stimulus does not act in the direction it should by supposition; yet the dependence upon the impression for the occasion to act, and the immediate nexus between this and the volition, is so close that it is, at least, very difficult to determine whether we should attribute more to the mind than to the stimulus in the consideration of causes. Under the circumstances we should not consider the agent responsible, although he was the cause of the act, and this because there did not exist the reflexion or deliberative condition which would make the subject independent of external influences. The act was free or spontaneous in the sense that it came from an ideational source, and was not the mere mechanical reflex of sensation as an organic state. But it was prevented from being reflective by the volitional tensions of consciousness waiting for an explosion, but not sufficiently restrained to wait for apperception. The agent was thus the cause of the act; but, owing to the suspension of inhibitive influences, habit, association, apperception, &c., he was not a responsible cause of it.

Now, we may take an illustration on a larger scale. Some persons in life are little more than agents in the condition of the subject under reaction experiments. They have a fixed attention upon some object, pleasure, fame, wealth, power, &c., which is likely to issue in action immediately upon the presentation of an opportunity to obtain

the coveted object. They are not disposed to deliberate. It is true that they may be responsible for this condition. But this conception of the case will come up again. For the moment we wish to indicate a mental condition which, if the agent is not responsible for it, will diminish the responsibility of his action, although not interfering with its freedom, as that is defined. Take the case of the person who suffers from a strong temptation to steal whenever the opportunity is offered. The very sight of money or property often provokes an irresistible inclination to theft. This type of mental condition is found in all degrees from inceptive responsibility to moral insanity, such as kleptomania and any similar servitude to temptations. But these external inducements have their suggestive power almost, if not wholly, from the predisposition of the subject. There is in him a fixed tendency to react upon impressions in the direction of a determinate desire, and unless inhibitive influences can check its motive power he is an agent without the power to act otherwise than in the one direction. He is like the man whose action is determined by his condition of expectancy in the experiments mentioned. Although the motive cause of his action is ideational and intentional, and free in the sense that no external influence can originate it, his independence of such influences is not great enough to make him the responsible cause. He acts from undeliberative impulses. His ideational character lacks the element of reflexion, or if it has any of this, it does not possess it in sufficient measure to restrain the intensity of feeling in the one direction of the will. In other words, the connexion between his predominant mental state and his volitions is too close to admit of interruption from anything except from a habit or a power to arrest the motive tendencies of an idea which may be the chance product of an outside impression. He is the free cause of his act, a fact which is clearly shown by the circumstance that the external impression derives its sole influence upon the will by the idea and inclination which give it meaning. But because he does not or cannot reflect upon and arrest the influence of this idea, no equal alternative presents itself to his mind, and hence he will not be responsible, or will possess this quality in a diminishing degree proportioned to his obsession by an undeliberative idea.

We are now prepared to examine more carefully the conditions of responsibility, and how deliberation, or what it implies, is essential to it. We shall say nothing of actions supposed to be the result of sensations and emotions

unaccompanied by an idea of an end, for it may well be questioned whether any such actions ever occur, and whether, since the abandonment of the Cartesian doctrine of sensation and emotion, such a conception of volitions would be tenable. All we could say is that no responsibility could exist under such conditions. Responsibility, if it exists, must occur within the limits of volition proper; that is, within the limits of actions produced by ideas or ideational motives. But we have previously said that the mere fact of ideational motivation does not make an act responsible, although it might make it free. This conception will now have to be qualified, or if not qualified, explained so as to show how ideational motives determine responsibility.

When saying that the mere fact that a motive is ideational does not make the subject responsible, we had in view the conception that the action or volition must not occur in virtue of the *mere existence of the ideational state.* If the mere existence of an idea determined muscular action the effect would be too much implicated either in the nexus between external stimulus and volition, or in the passive mental reaction resulting in a state of consciousness in which its own elements would not be open to choice. In the kleptomaniac the connexion between the existence of the idea and the volition is so close that deliberation on the merits of any other course is impossible. I do not mean necessarily the act of stealing, but the volition which decides the direction which action shall take, and which therefore shuts off the power of any other idea to take the place of the particular one in possession. And so with the idiot, the insane, and the criminal who feels his impulses taking him in only the one direction of his crime. What is required in all such cases is the influence of inhibition to arrest the reflex and impulsive tendency of an idea to issue in action until the higher ideas have a chance to be measured in comparison with it. This inhibition may occur in several ways. First, it may be a mere physiological action involving an absorption of energy that would otherwise seek expenditure in the direction of the first mental state awakened, and which represents a latent tendency of the organism to await the occurrence of higher functional exercise before passing into motor reaction. Second, it may be an arresting influence due to previous experiences which have acted to break the natural motor power of an idea, and which has so organised the unconscious functions of the brain, or the mind, that the original tendencies to reflex reactions are held in abeyance. Third, it may be the restraining influence

of one contemporaneous idea upon another. It is probable that the first of the three always occurs, and it may condition the influence of the others. But it is the third which is the most important in producing mental equilibrium after the rise of the first idea in response to impressions or any cause producing a mental state as a reaction. Suppose the case of a criminal whose first idea is theft. If any thought such as the fear of consequences, the superior merit of respect for property, or the value of virtue can occur to his mind before the complete obsession of attention with the idea of stealing, that very occurrence has a tendency to weaken the first thought as a motive power. It may itself be inhibited finally by the first state. But the moment that it occurs, it must arrest the intensity of the first in some measure. This is simply a case of the general law of consciousness expressed in Hamilton and Kant's doctrine that sensation and perception are in an inverse ratio to each other. Perhaps a better way of formulating it would be to say that the intensity of any element of a synthetic consciousness is in an inverse ratio to the one in the focus of attention. This will mean that the occurrence of any other idea than a given one avails to weaken the force of the first and may supplant it altogether. If idea B can come into consciousness before idea A acts it will arrest the force of A in proportion to its own recognition and may result in that condition which makes an equilibrium. The memory of a past pain by a child restrains the curiosity which would prompt it to put its fingers in the fire a second time. This is only a trite and well-known instance, but it illustrates the whole process. The most important feature for our present purpose, however, is a fact not generally noticed in such cases. It is, not only the fact that some function of arrest is exercised to produce hesitation between alternatives, and to interrupt the tendency of an idea from its mere existence to issue in action, but also the more important fact that the intellect can intervene to decide which alternative idea shall prevail. That is, instead of simply one mental conception without an alternative, two or more alternatives are presented to consciousness more or less balancing the motive tendencies of each other, but whether balancing each other or not, offering more than one potential volition as long as each is an object of recognition. In the process of alternation between the two ideas, however limited the time, there is not only deliberation which makes various courses of action possible, but there is a chance to sever consciousness from the nexus between stimulus and

motor action and from the primary tendency to an explosive reflex from its own existence, so that the whole motive can be formed by the mind either in its deliberative capacity at the time or as the result of a previous deliberation fixing the law of its desire and action. Thus it is the motive power of the higher consciousness or ideas that both checks the influence of the lower and makes another alternative possible than the one suggested by the first idea following an impression as a reflex. It is to be admitted, of course, that the first idea may finally prevail, but not until deliberation has made another alternative possible, and this is all that is necessary to establish at least a measure of responsibility in the agent.

The part which inhibition, whether physiological or psychological, plays in this process is merely a function of arresting lower impulses representing less mental time in their normal activity than the higher, so that the higher may intervene and supplant them. We may explain this arrest in any way we please, but it does not matter what the nature of it is. We are in this discussion concerned with it only as a *fact* compensating for the difference between the less and the greater mental time in the activity of lower and higher functions. Reflex reaction time is the quickest. The next is simple reaction time after stimulus with sensation. Association time is still longer. To prevent sensation and emotion as present states from issuing in motor reactions at once and to admit the higher associated ideas, covering the past as well as the present, into motivation, inhibition must arrest the former influences as we have shown. But then deliberation or will time is still greater, and this means that between a present and an associated consciousness there must elapse a period of time, however brief, for estimating the comparative value of the two or more possible directions for volition, unless that value has been decided by a previous act of reflexion, when less time will be expended in a choice. But all along some form of arrest is required to enable the higher functions to come into play before a definite action has rendered their intervention useless, and we find it occurring in those cases where deliberation is a fact. It may be a physiological tendency to reflexion, or it may be the effect of previous experiences and habit, or it may be a hereditary capacity due to certain habits in a near or remote ancestry. But it is in any case a force which allows the wider range of consciousness to compete fairly with the narrower, and to do so the higher processes involving more time to develop must

be given an opportunity to rise and be compared with the primary impulse. The interruption of the mechanical nexus and the process of reflexion effect this result, the subject becoming responsible precisely in proportion to his deliberation, or his capacity for deliberation.

With this establishment of the condition of responsibility there are two things to be remarked before going to the question of punishment. The first is that we do not mean to imply or assert that mere deliberation completes the idea of responsibility. There must exist the capacity for moral conceptions at the same time. This we assume in the developed moral agent. But even if this capacity existed and there was no possibility of deliberation the difference in time between the primary impulses of feeling and those ideas involved in moral reflexion and choice might often prevent the action of the latter. Hence the conditions of deliberation are the primary conditions of responsibility, which alone we are presuming to explain at present while taking for granted that the capacity for moral conceptions must also be present. The second remark is a distinction, which the last observation in the previous paragraph requires us to keep in mind; namely, that between *actual* responsibility, and a *capacity* for it. This is probably distinguishing between two kinds or two degrees of moral responsibility. But however we regard them, the distinction must be made in order to understand the subsequent discussion. A person who actually deliberates between two alternatives enjoys a measure of freedom, independence and responsibility somewhat different from one who only has the capacity for this deliberation, because his consciousness is better equilibrated and not so possessed by a single predominant mood. The significance of this will appear presently.

Now, to understand this whole matter in a better way, we take up the problem of punishment. Without defining it distinctly, it is sufficient to mention the three forms of it accepted by moralists, as at least representing the ideas and practices of men at present and in the past. They are preventive, corrective and retributive punishment. Suffice it to say that it is only the question of "punishment" that can give any importance to the freedom of the will and responsibility. Were it not for this very practical problem there would probably be no interest attached to the question we are discussing. But the necessity of preventing certain actions creates the problem of the means to this end. In the earliest periods of human life revenge, which was retribu-

tive in its nature, represented the form of punishment for evil-doing. But humanitarianism on the one hand, and a growing feeling on the other, whether conscious or unconscious of its assumptions, of modified responsibility gradually supplanted retributive by corrective and preventive punishment. But while all schools, or nearly all, have given up the propriety of purely retributive penalties, there has not been entire agreement upon the question whether they should be entirely preventive or entirely corrective. It is merely interesting to remark, however, that the necessitarian has as often advocated the corrective as the preventive method. The importance of this fact will be apparent presently. In the meantime we wish to explain the distinction between the several forms of punishment.

If there is any proposition which is universally accepted in morals and jurisprudence it is the proposition that an agent who is not free cannot be punished for his actions. From what we have said about the doctrine of free-will, it will be seen that this proposition is ambiguous, and we shall remark presently that it has a double ambiguity. In the first place, it may mean that a man who is not the cause of his actions cannot be punished, or it may mean that a man who is not responsible cannot be punished. In the second place, "punishment" represents two conceptions. The first is a means of prevention, and the second denotes the infliction of pain either for corrective or for retributive purposes, or perhaps for both. This will give us four possible meanings for our proposition. The first will have two predicates. With the limited meaning of the term "freedom" we have adopted in this article, the proposition would mean that if a man is not the cause of his own actions he would neither be the subject of preventive restraints, nor be amenable to corrective and retributive punishments. This proposition is unquestionably true. Prevention and punishment deal with causes, and evils could not be prevented by applying restrictive measures to beings that are not the cause of the thing to be prevented. This is simply a truism. But it is worth our mention in order to show the absurdity of pure necessitarianism when it defends either corrective or preventive punishment. We should not deal with an agent at all that was not the cause of its actions. We should deal with the external causes using it as a medium or instrument. Thus if man were purely a subject of reflex action, to prevent his action we should either have to take his life or remove the sources of external impressions. No one advocates the former, and we should have left as the only expedient the

removal of his environment. For instance, those who maintain that the one source of modern social evils is economic conditions, proceed upon this assumption, but without knowing it. However, not to multiply illustrations we see how helpless pure mechanical necessitarianism would be in the prevention of evil by denying that man is ever the cause of his own actions.

Now we shall take the second proposition, and see how it appears. "If a man is not responsible he cannot be the subject of preventive measures." This would be the meaning of the original form, if freedom and responsibility coincided, and if "punishment" were only preventive. But it is manifest that this proposition is not true. It neither accords with actual practice nor obtains the spontaneous acceptance which the first receives in morals and jurisprudence. Idiots and the insane, abandoned criminals, &c., are restrained, and even the necessitarian is among the first to justify such a policy. This leads us to formulate the ethical principle for such cases in the following manner. *A man or being who is only free, or the cause of his own acts, but is not morally responsible, is subject only to the system of preventive "punishment".* The illustrations of this rule are the classes referred to, and among them should be included the animal world. No attempt is made to apply corrective or reformative measures except as we assume the agent to have a capacity for changing his character. If we suppose that the agent is incapable of any modifications which would entitle him to his liberty, preventive measures are the only ones at our disposal.

Let us take next the third form of the proposition. "If a man is not responsible, he cannot be the subject of corrective punishment." This proposition is ambiguous. If we mean to deny *capacity* for deliberation and choice between alternatives, then the proposition is undoubtedly true. The only recourse in such cases is prevention, because we conceive the agent merely as the cause of his actions. But if we mean that the person does not as a fact deliberate, and suppose that under education and discipline he may be taught to weigh and consider alternatives, then the proposition is as manifestly false as the former is true. For, although a man by nature and habit may not be strong enough to resist, or may not know or feel enough to resist, the first impulse that comes into consciousness, it may be that the inhibitive forces of his nature have not been sufficiently developed to make him think twice before acting. What he requires is such an environment, or infliction of pains, as will necessitate deliberation, or con-

stantly thwart the first impulses of consciousness until new channels of habit are formed which may inhibit all tendencies to return to the original impulses. This is what corrective punishment is. It assumes at least the *capacity* for responsibility, and places the agent where other consequences have to be reckoned with than the one which offers the strongest natural motive to the will. The consciousness of this consequence will at once inhibit or arrest the force of the first inclination, and if persisted in or if enforced by habit and association, the effect in time will be that, when the agent is given his liberty, the first inclination may be unconsciously inhibited by the mere organic effect of an opposite habit until the alternative idea arises and develops intensity and interest enough to possess the will. The agent thus becomes a deliberative and not a merely impulsive being. Corrective influences are the agents in developing him from a *potentially* to an *actually* responsible creature: that is, in making him a being that habitually deliberates and that is capable of choosing between alternatives in all the situations where a question of morality may be raised. It is not meant that a man who is once actually responsible is always and everywhere so. He may be actually responsible in one thing, and only potentially responsible in another. It is only the ideally perfect man that is actually responsible in the full degree. It is apparent, therefore, that our conception of the case involves indeterminate degrees of responsibility, both potential and actual, the former being dependent upon the existence of inhibitive functions and the latter upon the range of their action.

Lastly, the fourth form of the proposition must be considered. It is: "If a man is not responsible he is not a subject of retributive punishment". This is undoubtedly true no matter which conception of responsibility we take, and represents the whole humanitarian movement of modern civilisation. The repugnance to the infliction of pain out of vindictive motives comes at least partly from the conviction that the criminal was not wholly able to do otherwise, or that the impulse to action was too strong to admit of sufficient deliberation. Hence, if incapable of being made to deliberate, preventive measures are the only remedy. But if he be thought capable of reform, the infliction of pain will be instituted with the purpose of developing a system of physiological and psychological inhibitions that modify the character by allowing the higher mental states to assume possession of the will. But in no

case will retribution be practised where palliating circumstances show weakened deliberative functions or impaired ability to choose equally between two or more alternatives. It *might* be otherwise with a being who has complete actual responsibility. A man who deliberately and knowingly chooses to do evil is the object of such moral indignation and vindictive feelings that mankind have thought retributive punishment in such cases perfectly justifiable. Now, we do not say that any person ever is so self-controlled as to do the wrong with such coolness and with the feeling that it is wrong. It has undoubtedly been the characteristic of modern progress that men are presumably less responsible than the old theory supposed. But we can explain certain vindictive and retributive feelings if we suppose that mankind have often conceived criminals as perfectly capable of doing otherwise than they have done and do. Retributive punishment would certainly have some excuses if that were the case.

We have now the basis for each form of punishment. Causal responsibility, or free action as here defined, potential moral responsibility, and actual moral responsibility are the three conditions to take account of. When only the first of these exists preventive punishment is the only permissible or possible course open to us. When the second exists, which also involves the first, then corrective punishment is applicable, which also includes the preventive, but differs from it alone in assuming a capacity for actual responsibility. When the third condition exists there is a basis, or at least an excuse for the retributive method of punishment. It is not intended here to affirm that any such condition ever exists in fact, but only that if it does exist there may be a reason for the theoretical idea of retribution.

It remains only to examine the relation of the doctrine of Necessitarianism to these forms of punishment. It is proper to remark first, however, that we do not think that preventive methods are strictly forms of "punishment" at all. This term should be limited to the corrective and retributive penalties which are deliberate inflictions of pain, while preventive measures endeavour to avoid such incidents of their application. But not to dwell longer on this point than to indicate that it may here be conceded, as some would desire, we have only to refer to what has already been remarked of a necessitarian; namely, that, if strictly interpreted, his theory will not permit the application of any means whatever to prevent or correct evil, *except such as do not affect the subject of such actions.* For if his theory does not

permit him to suppose that the subject is the cause of the actions appearing in his person, he cannot suppose that either prevention or correction is possible in the person of the subject by any process short of the subject's extinction or the removal of external influences. The former will not be allowed and the latter would stop all action of any kind, whether good or evil, and amounts practically to extinction. In fact, such a theory strictly interpreted could apply only to sticks and stones. It is to be remarked, however, that it does not exclude us from using preventive methods, because the exceptions referred to are preventive in their nature. In fact also many necessitarians maintain that "punishment" should only be preventive, and when denying freedom and responsibility this is the only consistent position to be taken. It is simply the isolation of the subject from the causes which act upon him as a supposed instrument. But an inconsistency can creep into the problem in either of two ways. *First*, if the necessitarian does not maintain that the isolation from external influences shall be absolutely permanent or as long as the same conditions exist, he assumes that the character of the subject can be modified by confinement. In this case what is called preventive is in reality corrective punishment, and the subject is assumed to have at least a capacity for freedom and responsibility, which must be denied by a theory that rejects the possibility of any such things in the world, and that pretends to admit only preventive "punishment". The fact also is that no necessitarian is so audacious as to maintain that every little delinquency should be met by perpetual or even long-standing isolation and confinement. He adjusts penalties that are assumed to correct the criminal's character and hence abandons the notion of simple prevention. *Secondly*, an inconsistency appears in the fact that some determinists or necessitarians, while denying responsibility and freedom, maintain a corrective system of punishment. They affirm that criminals cannot choose otherwise than they do, and then advocate a method of discipline which intends, first, that the criminal shall act under restraint otherwise than he habitually does and must, and second, that, when he is released from imprisonment, he may pursue a course other than the one which his nature compels him to choose. It is no answer to say that his environment, external influences, in both cases modify his conduct, because if these determine it, he is in no sense the cause of his actions, and is not the subject of even preventive methods, as already shown. A being that is neither free nor

responsible can neither modify his conduct, nor have it modified by any forces outside himself any longer than they are present as restraints or influences. He can have no alternatives. His character is by that supposition fixed and unalterable. If this be evil, it cannot be reformed or corrected, and if good, it cannot originate evil, and all because necessitarianism denies the possibility of alternative choice. But how does this doctrine consist with the fact that so many criminals change their character? For instance, in the Elmira Reformatory, *out of* 2295 *persons paroled between* 1876 *and* 1889, 1907 *or* 83 *per cent. represent "a probably complete reformation"*. We are usually told by the determinists that this class of persons cannot do otherwise, and yet they are expected to do otherwise both under discipline and when it is removed. We say nothing of the *non sequitur* in arguing from the supposed irresponsible nature of the criminal class to such as do not need any kind of discipline or education. But it is enough to see that 83 per cent. of those who must by the theory of determinism be utterly irreclaimable are actually reclaimed. There must be something wrong with a theory that appears incompatible with such a fact.

The distinction, however, which has been made above between potential and actual responsibility will solve the peculiar problem here indicated while it concedes something to the general doctrine of determinism, on the one hand, and vindicates a field for rational, free, and responsible conduct, on the other, as against the claim that whatever inability to choose otherwise than they do is found among criminals must be extended to the non-criminal class. We can admit the want of *actual* responsibility, at least in some matters, among the class spoken of, while maintaining that they are *potentially* responsible. Those who are actually responsible can deliberate or choose between alternatives and feel the value of moral motives. Those who are only potentially responsible are at the mercy either of every chance mental state occasioned by an impression or of that fixed idea which by supposition has no alternatives, until inhibitive agencies reduce the first impulsive tendencies to equilibrium. Certain criminals are, no doubt, more or less in this condition. Discipline presents to consciousness an alternative consequence to the one spontaneously desired, and in the course of time the former may so arrest the force of the latter as to emancipate the subject from his bondage and raise the person to the level of those who are actually responsible, and whose mental states are kept free from the nexus which immediately joins the impression and the

volition. Hence determinism may be correct in denying the actual responsibility of certain persons whom it finds handicapped by heredity, bad education, bad impulses, &c., rendering them the slave, not only of the strongest motive, but of certain fixed ideas and passions; but it assumes that they are more or less potentially responsible when it applies corrective discipline to them and reforms, as in the case mentioned, 83 per cent. of those subjects and raises them to a condition which entitles them to a personal liberty that no mere machine or automaton could ever be granted. It treats them as intelligent beings who have only to be placed in situations that evoke a consciousness of a more important alternative than their natural inclination would produce, and along with it a deliberative capacity, in order to educe actual from potential responsibility.

In conclusion it is interesting to remark the fact that the comparatively recent doctrine that imprisonment for crime should be for an indefinite period, its expiration to be determined by the degree of development in character and self-control, is founded upon a conception of the criminal which coincides exactly with the idea that responsibility exists only in degrees and is not an absolutely fixed and determinate quantity, and that the capacity for its actual manifestation is inversely proportioned to the amount and duration of the arresting influence exerted upon hereditary and habitual impulses. It is not necessary to explain in detail the principles involved in this reformation. It is enough to know that the process is conditioned and must begin with neural or psychical inhibition, that fundamental property of all organisms and conscious life, which serves to preserve a balance between the many forces of organised beings, and which enables the more slowly acting higher functions to compete for supremacy with the more rapidly acting lower functions. The history of the process is the history of evolution and of education. All the complex arrangements of environment, political and social institutions, education, penal discipline, religious sanctions, or conditions meant to arrest the first impulses of the will, are agencies which invoke and utilise inhibition of some kind until deliberative habits are formed, or until the higher moral functions of consciousness, if they exist ἐν δυνάμει, can intervene to liberate the subject from the mechanical order of phenomena. In this respect we might, after the manner of Pythagoras and Plato, regard man's condition, placed as he is amid a system of limiting forces, as one of probation and discipline, only we have a different motive for

conceiving him so. We conceive his situation as one of preparation for a higher degree of responsibility than mere spontaneous actions would permit. His condition is largely one of possibilities. The responsibility of scholasticism is an ideal, not a reality. Ignorance, passion, heredity and similar influence limit man's responsibility, though not his freedom, and make him a creature only of capacities, which, however, are such as impose as many limitations upon materialistic determinism as the conditions just mentioned impose upon the theory of ideal and unlimited responsibility. They are influences, which, however much they necessitate humanitarianism in the treatment of derelictions, do not stand in the way of a capacity for moral character which may be brought into action by the development of the inhibitive functions of organic and conscious life up to the point where deliberation and moral conceptions secure the supremacy.

III.—TIME AND THE HEGELIAN DIALECTIC. (II.)

By J. Ellis McTaggart.

At the end of the first part of this paper (Mind of October last) we had arrived at the conclusion that the conception of the dialectic process as eternally realised involved the assertion that the universe was fundamentally perfect, and that Hegel's attempt to explain away the obvious imperfection around us, by treating it as a delusion, had failed to bring the perfection of reality, and the imperfection of appearance, into harmony with one another.

Is there any other method which might be more successful? Can the denial of the ultimate reality of time, which caused the difficulty, by rendering it necessary to take the dialectic as eternally realised, be made to cure the wound which it has itself made? Would it not be possible, it might be said, to escape from our dilemma in this way? The dialectic itself teaches us that it is only the concrete whole which is completely rational, and that any abstraction from it, by the very fact that it is an abstraction, must be to some degree false and contradictory. An attempt to take reality, moment by moment, element by element, must make it appear imperfect. The complete rationality is only in the whole which transcends all these elements, and any one of them, considered as more or less independent, must be false. Now, if we look at the universe as in time, it will appear to be a succession of events, so that only part of it is existing at any given instant, the rest being either past or future. Each of these events will be represented as real in itself, and not merely as a moment in a real whole. And in so far as events in time are taken to be, as such, real, it must follow that reality does not appear rational. If an organic whole—and such we have taken the universe to be—is perfect, then any one of its parts, taken separately from the whole, cannot possibly be perfect. For in such a whole all the parts presuppose one another, and any one, taken by itself, must bear the traces of its isolation and incompleteness. And not only each event, but the whole universe taken as a series of events, would thus appear imperfect. Even if such a series could ever be complete, it could not fully represent the reality, since the parts would still, by their existence in time, be isolated from one another, and claim some amount

of independence. Thus the apparent imperfection of the universe would be due to the fact that we are regarding it *sub specie temporis*—an aspect which we have seen reason to conclude that Hegel himself did not regard as adequate to reality. If we could only see it *sub specie æternitatis*, we should see it in its real perfection.

It is true, I think, that in this way we get a step nearer to the goal required than we do by Hegel's own theory, which we previously considered. Our task is to find, for the apparent imperfection, some cause whose existence will not interfere with the real perfection. We shall clearly be more likely to succeed in this, in proportion as the cause we assign is a purely negative one. In the former case the appearance of imperfection was accounted for as a delusion of our minds. A delusion is a positive fact, and wants a positive cause, and, as we have seen, it is impossible to conceive this positive cause, except as something which will prevent the imperfection being a delusion at all. Then, however, the cause of the imperfection is nothing but the fact that we do not see everything at once. Seen as we see things now, the world must be imperfect. But if we can attain to the point of looking at the whole universe *sub specie æternitatis*, we shall see just the same subject-matter as in time; but it will appear perfect, because seen as a single concrete whole, and not as a succession of separated abstractions. The only cause of the apparent imperfection will be the negative consideration that we do not now see the whole at once.

This theory would be free from some of the objections which are fatal to a rather similar apology for the universe often put forward by optimistic systems. They admit that from the point of view of individuals the world is imperfect and irrational, but assert that these blemishes would disappear if we could look at the world as a whole. Such a theory, since it declares that the universe can be really perfect, although imperfect for individuals, implies that some individuals, at any rate, can be treated merely as means and not as ends in themselves. Without inquiring whether such a view is at all tenable, it is at any rate clear that it is incompatible with what is usually called optimism, since it would permit of many—indeed of all—individuals being doomed to eternal and infinite misery. We should be led to the formula in which Mr. Bradley sums up optimism. "The world is the best of all possible worlds, and everything in it is a necessary evil" (*Appearance and Reality*, p. xiv.). For if the universal harmony can make any evil to

individuals compatible with its own purposes, there is no principle upon which we can limit the amount which it can tolerate. Such a view could not possibly be accepted as in any way consistent with Hegel's system. It would be in direct opposition to its whole tendency, which is to regard the universal as only gaining reality and validity when, by its union with the particular, it becomes the individual. For Hegel the ideal must lie, not in ignoring the claims of individuals, but in seeing in them the embodiment of the universal.

Mr. Bradley's own treatment of the problem is of a rather similar type. He has to reconcile the harmony which he attributes to the Absolute with the disharmony which undoubtedly prevails, to some extent, in experience. This he does by taking the finite individual to be, as such, only appearance and not reality, from which it follows that it must distort, and cannot adequately partake in, the harmony of the Absolute. It may be doubted whether we do not fall into more difficulties than we avoid by this low estimate of the conscious individual. But, at any rate, such a solution would be impracticable for any one who accepted Hegel's version of the Absolute Idea, to which the individual is the highest form that the universal can take.

The objections which apply to the attempt to save the perfection of the Absolute by ignoring the claims of individuals will not apply to our endeavour to escape from our difficulty by ignoring, so to speak, the claims of particular moments of time. None of those considerations which make us consider each separate person as an ultimate reality, whose claims to self-realisation must be satisfied, and cannot be transcended, apply to separate periods of time. Indeed the whole drift of Hegel's system is as much against the ultimate reality of a succession of phenomena, as such, as it is for the ultimate reality of individual persons, as such. To deny *any* reality in what now presents itself to us as a time-series would indeed be suicidal. For we have no data given us for our thought, except in the form of a time-series, and to destroy our data would be to destroy our superstructure. But while philosophy could not start if it did not accept its data, it could not proceed if it did not alter them. There is then nothing obviously impossible in the supposition that the whole appearance of succession in our experience is, as such, unreal, and that reality is one timeless whole, in which all that appears successive is really coexistent, as the houses are coexistent which we see successively from the windows of a train.

It cannot, however, be said that this view is held by Hegel himself. In the Philosophy of Nature he treats time as a stage in the development of nature, and not as a cause why there is any successive development at all. Indeed he says there (§ 258) that things are not finite because they are in time, but are in time because they are finite. It would be thus impossible, without departing from Hegel, to make time the cause of the apparent imperfection of the universe.

Everything else in the Hegelian philosophy may indeed be considered as of subordinate importance to the Dialectic, and to its goal, the Absolute Idea. If it were necessary, to save the validity of the Dialectic, we might reject Hegel's views even on a subject so important as time, and yet call ourselves Hegelians. But we should not gain much by this reconstruction of the system. For it leaves the problem no more solved than it was before. The difficulty which proved fatal to Hegel's own attempt to explain the imperfection comes back as surely as before, though it may not be quite so obvious. However much we may treat time as mere appearance, it must, like all other appearance, have reality behind it. The reality, it may be answered, is in this case the timeless Absolute. But this reality will have to account, not merely for the facts which appear to us in time, but for this appearance of succession which they do undoubtedly assume. How can this be done? What reason can be given why the eternal reality should manifest itself in a time process at all? If we tried to find the reason outside the nature of the eternal reality, we should be admitting that time had some independent validity, and we should fall back into all the difficulties mentioned in the first part of this paper. But if we try to find the reason inside the nature of the eternal reality, we shall find it to be incompatible with the complete rationality which, according to Hegel's theory, that reality must possess. For the process in time is, by the hypothesis, the root of all irrationality, and how can it spring from anything which is quite free of irrationality? Why should a concrete and perfect whole proceed to make itself imperfect, for the sake of gradually getting rid of the imperfection again? If it gained nothing by the change, could it be completely rational to undergo it? But if it had anything to gain by the change, how could it previously have been perfect?

We have thus failed again to solve the difficulty. However much we may endeavour to make the imperfection of the universe merely negative, it is impossible to escape from the fact that, as an element in presentation, it requires a

positive cause. If we denied this, we should be forced into the position that not only was our experience of imperfection a delusion, but that it was actually non-existent. And this, as was mentioned above, is an impossibility. All reasoning depends on the fact that every appearance has a reality of which it is the appearance. Without this we could have no possible basis upon which to rest any conclusion.

Yet, on the other hand, so long as we admit a positive cause for the imperfection, we find ourselves to be inconsistent with the original position from which we started. For that position asserted that the sole reality was absolutely perfect. To this real perfection as cause, we have to ascribe apparent imperfection as effect. Now it is not impossible, under certain circumstances, to imagine a cause as driven on, by a dialectic necessity, to produce an effect different from itself. But in this case it does seem impossible. For any self-determination of a cause to produce its effect must be due to some incompleteness in the former without the latter. But if the cause, by itself, was incomplete, it could not, by itself, be perfect. If, on the other hand, it is perfect, it is impossible to see how it could be determined to produce a result alien to itself. Thus we oscillate between two extremes, each equally fatal. If we endeavour to treat evil as absolutely unreal, we have to reject the one basis of all knowledge. But in so far as we accept it as a manifestation of reality, we find it impossible to avoid qualifying the cause by the nature of the effect which it produces, and so contradicting the main result of the dialectic—the harmony and perfection of the Absolute.

We need not, after all, be surprised at the apparently insoluble problem which confronts us. For the question has developed into the old difficulty of the origin of evil, which has always baffled both theologians and philosophers. The original aim of the dialectic was to prove that all reality was completely rational. And Hegel's arguments led him to the conclusion that the universe, as a whole, could not be rational, except in so far as each of its parts found its own self-realisation. It followed that the universe, if harmonious on the theoretical side, would be harmonious also from a practical aspect—that is, would be in every respect perfect. This produces a dilemma. Either the evil round us is real, or it is not. If it is real, then reality is not perfectly rational. But if it is absolutely unreal, then all our finite experience —and we know of no other—must have an element in it which is absolutely irrational, and which, however much we may pronounce it to be unreal, has a disagreeably powerful

influence in moulding the events of our present life. Nor can we even hope that this element is transitory, and comfort ourselves, in orthodox fashion, with the hope of a heaven in which the evil shall have died away, while the good remains. For we cannot assure ourselves of such a result by any empirical arguments from particular data, which would be hopelessly inadequate to support such a conclusion. The only chance would be an *a priori* argument founded on the essential rationality of the universe, which might be held to render the imperfection transitory. But we should have no right to use such an argument. To escape the difficulties involved in the present coexistence of rationality and irrationality, we have reduced the latter to such complete unreality that it is not incompatible with the former. But this cuts both ways. If the irrationality cannot interfere with the rationality so as to render their present coexistence impossible, there can be no reason why their future coexistence should ever become impossible. If the irrational is absolutely unreal now, it can never become less real in the future. Thus our ascription of complete rationality to the universe leads us to a belief that one factor in experience, as it presents itself to us, is fundamentally and permanently irrational—a somewhat singular conclusion from such a premise.

To put the difficulty from a more practical point of view, either the imperfection in experience leaves a stain on perfection, or it does not. If it does, there is no absolute perfection, and we have no right to expect that the imperfection around us is a delusion or a transitory phase. But if it does not, then there is no reason why the perfection should ever feel intolerant of it, and again we have no right to hope for its disappearance. The whole practical interest of philosophy is thus completely overthrown. It asserts an abstract perfection beyond experience, but that is all. Such a perfection might almost as well be a Thing-in-itself, since it is unable to explain any single fact of experience without the aid of another factor, which it may call unreal, but which it finds indispensable. It entirely fails to rationalise it or to reconcile it with our aspirations.

The conclusion we have reached is one which it certainly seems difficult enough to reconcile with continued adherence to Hegelianism. Of the two possible theories as to the relation of time to the dialectic process, we have found that one, besides involving grave difficulties in itself, is quite inconsistent with the spirit of Hegel's system. The other, again, while consistent with that system, and, indeed, appearing to

be its logical consequence, has landed us in what seems to be a glaring contradiction to the facts. Is it not inevitable that we must reject a system which leads us to such a result?

Before deciding on such a course, however, it might be wise to see if we can really escape from the difficulty in such a way. If the same problem, or one of like nature, proves equally insoluble in any possible system, we may be forced to admit the existence of an incompleteness in our philosophy, but we shall no longer have any reason to reject one system in favour of another. Now, besides the theory which has brought us into this trouble—the theory that reality is fundamentally rational—there are, it would seem, three other possibilities. Reality may be fundamentally irrational. It may be the product of two independent principles of rationality and irrationality. Or it may be the work of some principle to which rationality and irrationality are equally indifferent—some blind fate, or mechanical chance.

These possibilities may be taken as exhausting the case. It is true that, on Hegelian principles, a fifth alternative has sometimes to be added, when we are considering the different combinations in which two predicates may be asserted or denied of a subject. We may say that it is also possible that the two predicates should be combined in a higher unity. This would leave it scarcely correct to say, without qualification, that either is asserted or either denied of the subject. But synthesis is itself a process of reasoning, and unites its two terms by a category in which we recognise the nature of each extreme as a subordinate moment, which is harmonised with the other. The harmony involves that, wherever a synthesis is possible, reason is supreme. And so, if the truth were to be found in a synthesis of the rational and the irrational, that synthesis would itself be rational—resolving, as it would, the whole universe into a unity expressible by thought. Thus we should have come round again to Hegel's position that the world is fundamentally rational.

We need not spend much time over the supposition that the world is fundamentally irrational—not merely regardless of reason, but contrary to reason. To begin with, such a hypothesis refutes itself—first, because it would explain the world by the fact that it was completely incapable of explanation, and, secondly, because the conception of complete irrationality is self-contradictory. The completely irrational could never be known to exist, for even to say a thing exists implies its determination by at least one predicate, and

therefore its comparative rationality. More particularly, we may remark here that such a theory would meet with a difficulty precisely analogous to that which conflicts with Hegel's theory, except that in this case the stumbling-block would lie, not in the existence of some irrationality in the universe, but in the existence of some rationality. To explain away the latter would be as impossible as we have found it to be to explain away the former. Yet it is at least as impossible to conceive how the fundamentally irrational should manifest itself as rationality, as it is to conceive the converse process. We shall gain nothing, then, by deserting Hegel for such a theory as this.

It might seem as if a dualistic theory would be well adapted to the chequered condition of the actual world. But as soon as we try to construct such a theory, difficulties arise. The two principles, of rationality and irrationality, to which the universe is referred, will have to be absolutely separate and independent. For if there were any common unity to which they should be referred, it would be that unity and not its two manifestations which would be the ultimate explanation of the universe, and our theory, having become monistic, resolves itself into one of the others, according to the attitude of this single principle towards reason, whether favourable, hostile, or indifferent.

We must then refer the universe to two independent and opposed forces. Nor will it make any important difference if we make the second force to be, not irrationality, but some blind force not in itself hostile to reason. For in order to account for the thwarted rationality which meets us everywhere in the universe, we shall have to suppose that the result of the force is, as a fact, opposed to reason, even if opposition to reason is not its essential nature.

In the first place, can there be really two independent powers in the universe? Surely not. As Mr. Bradley remarks (*Appearance and Reality*," p. 141), "Plurality must contradict independence. If the beings are not in relation, they cannot be many; but if they are in relation they cease forthwith to be absolute. For, on the one hand, plurality has no meaning, unless the units are somehow taken together. If you abolish and remove all relations, there seems no sense left in which you can speak of plurality. But, on the other hand, relations destroy the real's self-dependence. For it is impossible to treat relations as adjectives, falling simply inside the many beings. And it is impossible to take them as falling outside somewhere in a sort of unreal void, which makes no difference to anything.

Hence . . . the essence of the related terms is carried beyond their proper selves by means of their relations. And, again, the relations themselves must belong to a larger reality. To stand in a relation and not to be relative, to support it and yet not to be affected and undermined by it, seem out of the question. Diversity in the real cannot be the plurality of independent beings. And the oneness of the Absolute must hence be more than a mere diffused adjective. It possesses unity as a whole and as a single system."

The argument has additional strength in this case. For the two forces which we are asked to take as absolutely opposed are, by the hypothesis which assumed them, indissolubly united. Both forces are regarded as all-pervading. Neither can exist by itself anywhere. Every fact in the universe is due to the interaction of the two. And, further, they can only be described and defined in relation to one another. If the dualism is between the rational and the irrational as such, it is obvious that the latter, at any rate, has only meaning in relation to its opposite. And if we assume that the second principle is not directly opposed to rationality, but simply indifferent to it, we shall get no further in our task of explaining the imperfect rationality which appears in our data, unless we go on to assume that its action is contrary to that of a rational principle. Thus a reference to reason would be necessary, if not to define our second principle, at any rate to allow us to understand how we could make it available for our purpose.

We cannot, besides, describe anything as irrational, or as indifferent to reason, without ascribing to it certain predicates—Being, Substance, Limitation, for example. Nor can we refer to a principle as an explanation of the universe without attributing to it Causality. These determinations may be transcended by higher ones, but they must be there, at least as moments. Yet anything to which all these predicates can be ascribed cannot be said to be entirely hostile or indifferent to reason, for it has some determinations common to it and to reason, and must be, therefore, in more or less harmony with the latter. But if this is so, our complete dualism fails us.

The two principles then can scarcely be taken as absolutely independent. But if they cannot our dualism fails to help us, and indeed vanishes. We were tempted to resort to it because the two elements in experience—the rationality and the want of rationality—were so heterogeneous as to defy reduction to a single principle. And if we cannot keep our two principles distinct, but are compelled to regard them as

united in a higher unity, we might as well return explicitly to monism.

But even if we could keep the two principles independent, it seems doubtful if we should be able to reach by means of this theory a solution of our difficulty. The forces working for and against the rationality of the universe must either be in equilibrium or not. If they are not in equilibrium, then one must be gaining on the other. The universe is then fundamentally a process. In this case we shall gain nothing by adopting dualism. For the difficulties attendant on conceiving the world as a process were just the reason which compelled us to adopt the theory that the universe was at present perfectly rational. The process must be finite in length, since we can attach no meaning to an actual infinite process. And since it is still continuing, we shall have to suppose that the two principles came into operation at a given moment, and not before. And since these principles are, on the hypothesis, ultimate, there can be nothing to determine them to begin to act at that point, rather than another. In this way we shall be reduced, as before, to suppose an event to happen in time without antecedents and without cause, a solution which cannot be accepted as satisfactory.

Shall we succeed better on the supposition that the forces which work for and against rationality are exactly balanced? In the first place we should have to admit that the odds against this occurring were infinity to one. For the two forces are, by the hypothesis, absolutely independent of one another. And, therefore, we cannot suppose any common influence acting on both of them, which should tend to make their forces equal, nor any relationship between them, which should bring about this result. The equilibrium could only be the result of mere chance, and the probability of this producing infinitely exact equilibrium would be infinitely small. And the absence of any *a priori* reason for such an equilibrium could not, of course, be supplied by empirical observation. For the equilibrium would have to extend over the whole universe, and we cannot carry our observations so far.

Nor can we support the theory by the consideration that it, and no other, will explain the undoubted coexistence of the rational and the irrational in our present world. For it fails to account for the facts. It fails to explain the existence of change—at any rate of that change which leaves anything more or less rational, more or less perfect, than it was before. It is a fact which cannot be denied that sometimes that

which was good becomes evil, and sometimes that which was evil becomes good. Now, if the two principles are exactly balanced, how could such a change take place? Of course we cannot prove that the balance between the two forces does not remain the same, if we consider the whole universe. Every movement in the one direction, in one part of the whole, may be balanced by a corresponding move in the other direction somewhere else. As we do not know the entire universe in detail, it is quite impossible for us to refute this. But this will not remove the difficulty. We have two principles whose relations to one another are constant. Yet the facts around us, which are manifestations of these two principles, and of these two principles only, are constantly changing. If we are to take time and change as ultimate facts, such a contradiction seems insuperable. On the other hand, to deny the ultimate validity of time and change, commits us to the series of arguments, the failure of which first led us to doubt Hegel's position. If time could be viewed as a manifestation of the timeless, we need not have abandoned monism, for the difficulty of imperfection could then have been solved. On the other hand, if time cannot be viewed in this way, the contradiction between the unchanging relation of the principles and the constant change of their effects appears hopeless.

There remains only the theory that the world is exclusively the product of a principle which regards neither rationality nor irrationality, but is directed to some aim outside them, or to no aim at all. Such a theory might account, no doubt, for the fact that the world is not a complete and perfect manifestation either of rationality or of irrationality. But it is hardly exaggerated to say that this is the only fact about the world which it would account for. The idea of such a principle is contradictory. We can have no conception of its operation, of its nature, or even of its existence, without bringing it under some predicates of the reason. And if this is valid, then the principle is, to some extent at least, rational. Even this would be sufficient to destroy the theory. And, besides this, we should have to refute the detail of Hegel's dialectic before we could escape the conclusion that, if any categories of reason can be predicated of any subject, we are bound to admit the validity of the Absolute Idea of the same subject-matter, so that whatever is rational in part must be rational completely.

It would seem then that any other system offers as many obstacles to a satisfactory explanation of our difficulty as were presented by Hegel's theory. Is the inquirer then

bound to take refuge in complete scepticism, and reject all systems of philosophy, since none can avoid inconsistencies or absurdities on this point? This might perhaps be the proper course to pursue, if it were possible. But it is not possible. For every word and every action implies some theory of metaphysics. Every assertion or denial of fact—including the denial that there is any certain knowledge at all—asserts that something is certain. And to assert this, and yet to reject all ultimate explanations of the universe, is a contradiction at least as serious as any of those into which we were led by our attempt to explain away imperfection in obedience to the demands of Hegel's system.

We find then as many, and as grave, difficulties in our way when we take up any other system, or when we attempt to take up no system at all, as met us when we considered Hegel's theory, and our position towards the latter must be to some degree modified. We can no longer reject it, because it appears to lead to an absurdity, if every possible form in which it can be rejected involves a similar absurdity. At the same time we cannot possibly acquiesce in an unreconciled contradiction. Is there any other course open to us?

We must remark, in the first place, that the position in which the system finds itself, though difficult enough, is not a *reductio ad absurdum*. When an argument ends in such a reduction, there can never be any hesitation or doubt about rejecting the hypothesis with which it started. It is desired to know if a certain proposition is true. The assumption is made that the proposition is true, and it is found that the assumption leads to a contradiction. Thus there is no conflict of arguments. The hypothesis was made, not because it had been proved true, but to see what results would follow. Hence there is nothing to contradict the inference that the hypothesis must be false, which we draw from the absurdity of its consequences. On the one side is only a supposition, on the other ascertained facts.

This, however, is not the case here. The conclusion, that the universe is timelessly perfect, which appears to be in conflict with certain facts, is not a mere hypothesis, but asserts itself to be a correct deduction from other facts as certain as those which oppose it. Hence there is no reason why one should yield to the other. The inference that the universe is completely rational, and the inference that it is not, are both deduced by reasoning from the facts of experience. Unless we find a flaw in one or the other of the chains of deduction, we have no more right to say that Hegel's dialectic is wrong because the world is imperfect,

than to deny that the world is imperfect, because Hegel's dialectic proves that it cannot be so.

It might appear at first sight as if the imperfection of the world was an immediate certainty. But in reality only the data of sense, upon which, in the last resort, all propositions must depend for their connexion with reality, are here immediate. All judgments require mediation. And, even if the existence of imperfection in experience was an immediate certainty, yet the conclusion that its existence was incompatible with the perfection of the universe as a whole, could clearly only be reached mediately, by the refutation of the various arguments by means of which a reconciliation has been attempted.

It is no doubt our first duty, when two trains of reasoning appear to lead to directly opposite results, to go over them with the greatest care, that we may ascertain whether the apparent discrepancy is not due to some mistake of our own. It is also true that the chain of arguments by which we arrive at the conclusion that the world is perfect, is both longer and less generally accepted, than the other chain by which we reach the conclusion that there is imperfection in the world, and that this prevents the world from being perfect. We may, therefore, be possibly right in expecting beforehand to find a flaw in the first chain of reasoning, rather than in the second.

This, however, will not entitle us to adopt the one view as against the other. We may expect beforehand to find an error in an argument, but if in point of fact we do not succeed in finding one, we are bound to continue to accept the conclusion. For we are compelled to yield our assent to each step in the argument, so long as we do not see any mistake in it, and we shall in this way be conducted as inevitably to the end of the long chain as of the short one.

We may, I think, assume, for the purposes of this paper, that no discovery of error will occur to relieve us from our perplexity, since we are not endeavouring to discuss the truth of the Hegelian dialectic, but the consequences which will follow from it if it is true. And we have now to consider what we must do in the presence of two equally authoritative judgments which contradict one another.

The only course which it is possible to take appears to me to be that described by Mr. Arthur Balfour (*Defence of Philosophic Doubt*, p. 313). We must "accept both contradictories, thinking thereby to obtain, under however unsatisfactory a form, the fullest measure of truth which" we are "at present able to grasp". Of course we cannot adopt

the same mental attitude which we should have a right to take in case our conclusions harmonised with one another. We must never lose sight of the fact that the two results do *not* harmonise, and that there must be something wrong somewhere. But we do not know where. And to take any step except this, would imply that we did know where the error lay. If we rejected the one conclusion in favour of the other, or if we rejected both in favour of scepticism, we should thereby assert, in the first case, that there was an error on the one side and not on the other, in the second case that there were errors on both sides. Now, if the case is as it has been stated above, we have no right to make such assertions, for we have been unable to detect errors on either side. All that we can do is to hold to both sides, and to recognise that, till one is refuted, or both are reconciled, our knowledge is in a very unsatisfactory state.

At the same time we shall have to be very careful not to let our dissatisfaction with the conflict, from which we cannot escape, carry us into an either explicit avowal or a tacit acceptance of any form of scepticism. For this would mean more than the mere equipoise of the two lines of agreement. It would involve the entire rejection, at least, of that one which asserts that the universe is completely rational. And, as has been said above, we have no right to reject either side of the contradiction, for no flaw has been found in either.

The position in which we are left appears to be this: If we cannot reject Hegel's dialectic, our system of knowledge will contain an unsolved contradiction. But that contradiction gives us no more reason for rejecting the Hegelian dialectic than for doing anything else. We are merely left with the conviction that something is fundamentally wrong in knowledge which all looks equally trustworthy. Where to find the error we cannot tell. Such a result is sufficiently unsatisfactory. Is it possible to find a conclusion not quite so negative?

We cannot, as it seems to us at present, deny that both the propositions are true, nor deny that they are contradictory. Yet we know that one must be false, or else that they cannot be contradictory. Is there any reason to hope that the solution lies in the last alternative? This result would be less sceptical and destructive than any other. It would not involve any positive mistake in our previous reasonings, as far as they went, which would be the case if harmony was restored by the discovery that one of the two conclusions was fallacious. It would only mean that we had

not gone on far enough. The two contradictory propositions —that the world was fundamentally perfect, and that imperfection did exist—would be harmonised and reconciled by a synthesis, in the same way that the contradictions within the dialectic itself are overcome. The two sides of the opposition would not so much be both false as both true. They would be taken up into a higher sphere where the truth of both is preserved.

Moreover, the solution in this case would be exactly what might be expected if the Hegelian dialectic were true. For, as has been said, the dialectic always advances by combining on a higher plane two things which were contradictory on a lower one. And so, if, in some way now inconceivable to us, the eternal realisation of the Absolute Idea were so synthesised with the existence of imperfection as to be reconciled with it, we should harmonise the two sides by a principle already expounded in one of them.

It must be noticed also that the contradiction before us satisfies at any rate one of the conditions which are necessary if a synthesis is to be effected. It is a case of contrary and not merely of contradictory opposition. The opposition would be contradictory if the one side merely denied the validity of the data, or the correctness of the inferences, of the other. For it would then not assert a different and incompatible conclusion, but simply deny the right of the other side to come to its own conclusion at all. But it is a contrary opposition, because neither side denies that the other is, in itself, coherent and valid, but sets up against it another line of argument, also coherent and valid, which leads to an opposite and incompatible conclusion. We have not reasons for and against a particular position, but reasons for two positions which deny one another.

If the opposition had been contradictory, there could have been no hope of a synthesis. We should have ended with two propositions, one of which was a mere denial of the other —the one, that the universe is eternally rational, the other, that this is not the case. And between two merely contradictory propositions, as Trendelenburg points out (*Logische Untersuchungen*, vol. i. p. 44), there can be no possible synthesis. One only affirms, and the other only denies. And between simple affirmation and simple negation we can find nothing which will succeed in reconciling them. For their whole meaning is summed up in their denial of one another, and if, with their reconciliation, the reciprocal denial vanished, the whole meaning would vanish also, leaving nothing but a blank. Instead of having equally strong grounds to believe

two different things, we should have had no grounds to believe either. Any real opposition may conceivably be synthesised. But it is as impossible to get a harmony out of an absolute blank, as it is to get anything else.

Here, however, when we have two positive conclusions, which appear indeed to be incompatible, but have more in them than simple incompatibility, it is not impossible that a higher notion could be found, by which each should be recognised as true, and by which it should be seen that they were really not mutually exclusive.

The thesis and antithesis in Hegel's logic always stand to one another in a relation of contrary opposition. In the higher stages, no doubt, the antithesis is more than a mere opposite of the thesis, and already contains an element of synthesis. But the element of opposition, which is always there, is always an opposition of contraries. Hence it does not seem impossible that this further case of contrary opposition should be dealt with in the same way as that which Hegel uses. Incompatible as the two terms seem at present, they can hardly seem more hopelessly opposed than any pair of contraries in the dialectic would seem, before their synthesis had been found.

It is possible, also, to see some reasons why such a solution, if possible at all, should not be possible yet, and why it would be the last abstraction to be removed as the dialectic process rebuilds concrete realities. Our aim is to reconcile the fact that the Absolute Idea exists eternally in its full perfection, with the fact that it manifests itself as something incomplete and imperfect. Now it is only as a process, and consequently as something incomplete and imperfect, that the Absolute Idea becomes known to us. We have to grasp its moments successively, and to be led on from the lower to the higher. We cannot therefore become aware of any inadequacy which there may be in the idea of process, or of any synthesis which would reconcile that idea with the idea of eternal existence, except as the last stage in our comprehension of the universe. The gradual comprehension is itself a process, and to pass beyond that form must be impossible while any further steps remain to be taken.

I am not, of course, trying to argue that there is such a reconciliation, or that there is the slightest positive evidence to prove that there can be one. As I have tried to show, the eternal realisation of the Absolute Idea, and the existence of change and evil, are, for us as we are, absolutely incompatible, nor can we even imagine a way in which they

should cease to be so. If we could imagine such a way we should have solved the problem, for as this way would be the only chance of rescuing our knowledge from hopeless confusion, we should be justified in taking it.

All I wish to suggest is that it is conceivable that there should be such a synthesis, although it is not conceivable what synthesis it could be, and that, although there is no positive evidence for it, there is no evidence against it. And as either the incompatibility of the two propositions, or the evidence for one of them, must be a mistake, we may have at any rate a hope that some solution may lie in this direction.

In so far as we are certain that neither the arguments for the eternal perfection of the Absolute Idea, nor for the existence of process and change, are erroneous, we should be able to go beyond this negative position, and assert positively the existence of the synthesis, though we should be as unable as before to comprehend of what nature it could be. We could then avail ourself of Mr. Bradley's maxim, "what may be and must be, certainly is". That the synthesis must exist would, on the hypothesis we are considering, be beyond doubt. For if both the lines of argument which lead respectively to the eternal reality of the Absolute Idea, and the existence of change could be known to be, not merely unrefuted, but true, then they must somehow be compatible. That all truth is harmonious is the postulate of reasoning, the denial of which would abolish all tests of truth and falsehood, and so make all judgment unmeaning. And since the two propositions are, as we have seen throughout this paper, incompatible as they stand in their immediacy, the only way in which they can possibly be made compatible is by a synthesis which unites by transcending them.

Can we then say of such a synthesis that it may be? Of course it is not possible to do so unless negatively. A positive assertion that there was no reason whatever why a thing should not exist could only be obtained by a complete knowledge of it, and, if we had a complete knowledge of it, it would not be necessary to resort to indirect proof to discover whether it existed or not. But we have, it would seem, a right to say that no reason appears why it should not exist. If the Hegelian dialectic is true (and if it were not, our difficulty would not have arisen) we know that predicates which seem to be contrary can be united and harmonised by a synthesis. And the fact that such a synthesis is not conceivable by us need not make us consider it impossible. Till such a synthesis is found it must always appear inconceivable,

and that it has not yet been found implies nothing more than that the world, considered as a process, has not yet worked out its full meaning.

But we must admit that the actual result is rather damaging to the prospects of Hegelianism. We may, as I have tried to show, be sure that, if Hegel's dialectic is true, then such a synthesis must be possible, because it is the only way of harmonising all the facts. At the same time, the fact that the dialectic cannot be true, unless some synthesis which we do not know, and whose nature we cannot even conceive, relieves it from an obstacle which would otherwise be fatal, certainly lessens the chance that it is true, even if no error in it has yet been discovered. For our only right to accept such an extreme hypothesis lies in the impossibility of finding any other way out of the dilemma. And the more violent the consequences to which an argument leads us, the greater is the antecedent probability that some flaw has been left undetected.

Not only does such a theory lose the strength which comes from the successful solution of all problems presented to it, but it is compelled to rely, with regard to this particular proposition, on a possibility which we cannot at present fully grasp, even in imagination, and the realisation of which would perhaps involve the transcending of all discursive thought. Under these circumstances it is clear that our confidence in Hegel's system must be considerably less than that which was possessed by its author, who had not realised the tentative and incomplete condition to which this problem inevitably reduced his position.

The result of these considerations, however, is perhaps on the whole more positive than negative. They can scarcely urge us to more careful scrutiny of all the details of the dialectic than would be required in any case by the complexity of the problems which the latter presents. And, on the other hand, they do supply us, as it seems to me, with a ground for believing that neither time nor imperfection forms an insuperable objection to the dialectic. If the latter is not valid in itself, we shall in any case have no right to believe it. And if it is valid in itself, we shall not only be entitled, but we shall be bound, to believe that one more synthesis remains as yet unknown to us, which shall overcome the last and most persistent of the contradictions inherent in appearance.

IV.—REFLECTIVE CONSCIOUSNESS

By Shadworth H. Hodgson.

I was diligently taxing myself to discover a suitable subject for a promised article in Mind, when the latest part of the Aristotelian Society's *Proceedings* appeared, containing a vigorous attack on the doctrine of Reflective Consciousness as set forth in my *Philosophy of Reflexion*, by the able Editor of Mind himself.[1] It at once occurred to me, that no topic that I might select for Mind could take precedence of an explanation and defence of my position on this point, namely, the nature of Reflective Consciousness, being, as I think will be allowed, a point of vital and general interest in philosophy.

I was, indeed, present at the meeting of the Aristotelian Society, when my friend, Mr. Stout, read the paper in which that vigorous attack of his was made, and I replied to it *viva voce* in the discussion which followed. But the paper has since then been printed in the published *Proceedings* of the Society, and if I made no effort to reply to it in print, I might too probably be held by many to have abandoned the position which it so powerfully assailed. My friend, Mr. Stout, and the Editor of Mind being "opposite aspects," or *ἀντικατηγορούμενα*, of each other, will, I dare say, allow me the space of a few pages in Mind for my proposed explanation and defence. Indeed I hope, considering the general and fundamental nature of the question at issue, that the present explanation may be accepted in lieu of my promised article.

Did I not know what enormous influence a preconceived idea, when intensified by predilection and confirmed by habit, is capable of exerting, in the way of rendering its *habitué* blind to ideas which are in conflict with it, I should have been astonished by the total misconception of my meaning which Mr. Stout displays in the paper which assails it. He has himself an inkling of this, for he says: "I am, however, fully prepared to hear that I have misinterpreted his (Mr. Hodgson's) doctrine. I think it very likely that I have done so" (*P. A. S., uvi sup.*, p. 113). "But," he immediately proceeds, "I should like to know

[1] *Proceedings of the Aristotelian Society* (Williams & Norgate), vol. ii. No. 2, part 2, pp. 107-120.

what other interpretation can be put upon his words, and especially on the passages quoted, than that which I have given them." Now this other interpretation of the words, which is the true one, will become manifest, so soon as we adopt the philosophical point of view, which is that from which they were written, instead of the psychological point of view, which is that from which they are assailed, and which is apparently the only one which Mr. Stout can even conceive as possible.

It is this excessive and exclusive preoccupation with psychology which furnishes the only explanation I can imagine for Mr. Stout's total misconception of my doctrine of reflexion, and that in both the sections into which his attack upon it divides itself. In the first of these he assails my doctrine of subjective and objective aspects (*P. A. S., ubi sup.*, pp. 108-113); in the second, the doctrine of what I have called primary consciousness, in its relation both to reflective consciousness and to direct (*ib.*, pp. 113-120). I will take these sections in their order.

First I must say that the doctrines assailed are contained in a work published sixteen years ago, my *Philosophy of Reflexion*, and that I should now be disposed to give a far wider meaning to the term *reflective consciousness* than I gave to it in that work. I should also at the present time employ the term *primary consciousness*, if at all, in a somewhat different manner. Many of the considerations, which have led me to the more complete analysis involving these changes of nomenclature, are to be found in my annual addresses to the Aristotelian Society, from 1880 onwards. To these, however, Mr. Stout makes no reference. He assails my doctrines as they are expressed in that earlier work; and since I continue to hold what is essential in them as firmly as ever, it is the doctrines in their earlier expression which I am now concerned to defend, both as being true so far as they go, and as being entirely unaffected by Mr. Stout's arguments.

To come now to the first section of the attack. "Accordingly," says Mr. Stout (*ib.*, p. 108), "I impeach before the judgment seat of the reflective method, Mr. Hodgson's own account of that method. I accuse him of having surreptitiously introduced into his exposition of the nature of reflexion a baseless, false and mischievous assumption. He assumes that because consciousness refers to an object, that object is, *eo ipso*, a state of consciousness. He assumes that it is the very same state of consciousness which takes cognisance of it."

"High crimes and misdemeanours" indeed! One would think it was Burke perorating against Warren Hastings (*vide* Macaulay's Essay, *sub fin.*). But to the point. There are two assumptions imputed to me here, though Mr. Stout (charitably I will suppose) minimises their atrocity, by calling them one. The first is, that every object is a state of consciousness; the second is, that it is the very same state of consciousness which takes cognisance of it. These two supposed assumptions do not stand on exactly the same footing. For imputing the second there is not a vestige of justification in my book; for imputing the first there is. But for this Mr. Stout (charitably I will again suppose) suggests a reason; which is, that "because consciousness refers to an object, that object is, *eo ipso*, a state of consciousness".

Now, as I do not in fact make the supposed assumption at all, it is obvious that I do not accept the reason which Mr. Stout assigns for my making it. But the fact of his supposing, that such a reason could possibly have been mine, shows the totally different points of view from which we approach the subject, his being psychological, mine philosophical. From his point of view, the difference between Objects and Subjects is an already acquired fact, a *datum* or starting-point for further knowledge. From mine, the evidence on which this difference is to be accepted as a fact has first to be examined. Attributing, then, his point of view to me, Mr. Stout can hardly avoid also attributing to me the reason which he suggests, "because consciousness refers to an object,"—it is the only reason which he can think of,—utterly futile as it is, for my supposed assumption. The ground of Mr. Stout's total misconception of my meaning thus becomes apparent.

At the same time the ground for those statements of mine, which Mr. Stout has misconstrued to mean that all objects are states of consciousness, becomes apparent also. For from my point of view it is the *evidence* for facts,—facts of every kind without exception,—which is in question; and all evidence is plainly included in consciousness, as one of its functions. It is, therefore, with objects only so far as they are objects of consciousness that I am dealing in the work assailed, only with objects as objects of knowledge, true or imaginary, only with objects *qua* known or knowable. "For philosophy is primarily and mainly, I mean in its whole analytic branch, concerned with *clearing the ideas*, not with discovering new facts, but with analysing old ones; its problem being not how the world came into being, but

how, having come, it is intelligible" (*Philos. of Refl.*, vol. i. p. 33). And again: "The meaning of the term *existence* is at the root of all philosophical discussion" (*ibid.*, p. 72). In fact it is only through consciousness that we know of being or existence at all.

True, I go beyond this in certain cases, where I state and adopt results to which my analysis, so far as I have pushed it, has seemed to lead. But these results are by no means of a kind to support that assumption which Mr. Stout attributes to me, and which seems to involve the most extravagant idealism. Among them are these, that we have no valid evidence for the reality of immaterial, no valid evidence against the reality of material, substances. And it is for the real existence of material things that Mr. Stout shows himself particularly zealous in his polemic.

To ascertain the meaning of the term *Being*, or *Reality*, and the evidence for the existence of Beings or Realities, is therefore with me the first business of philosophy. Nor does this make my system a mere theory of knowledge (*Erkenntnisstheorie*), a mere preliminary to Metaphysic. Any inquiry into Knowledge, if it is thorough, is an inquiry into Being or Reality also, that is to say, *is* Metaphysic; and that for the simple reason that *what we mean* by Being or Reality is necessarily the first question in both alike, since we do not bring the idea of Being, ready-made, into the world with us at our birth.

Now such an inquiry is only possible, in my opinion, by analysing consciousness as it is actually experienced. That view may be right or wrong; it is a question of method. But the process of analysing consciousness no more involves an assumption,—whether in affirmation of consciousness or of reality, or in denial of them,—than does the process of being conscious itself. If Mr. Stout desires an analysis of real material objects apart from the evidence for their reality, he must take them to a chemist, not to a metaphysician.

The first, then, of the two supposed assumptions laid to my charge by Mr. Stout cannot possibly be attributed to me; and, if so, then neither can the second. If I do not assume that every object is a state of consciousness, I cannot assume that it is "that state of consciousness which takes cognisance of it". The baselessness of the first attribution destroys the possibility of the second.

But what of Mr. Stout's challenge to put another interpretation on the passages which he quotes from me, than that which he has given? The challenge is one which

cannot possibly be evaded, though the meeting it will, I fear, render this part of my article somewhat dull reading.

Four passages are quoted by Mr. Stout in proof that I actually hold the view he has imputed to me (*P. A. S., ubi sup.*, pp. 109-110). The first runs as follows: "*Aspect*, as a philosophical term, means a character co-extensive with and peculiar to the thing of which it is an aspect". This passage comes from my *Philosophy of Reflexion*, vol. ii. p. 20; but the reference is not given by Mr. Stout. Here I begin to suspect that his calling my two (supposed) assumptions one, might not have arisen from purely charitable motives. For it is apparently to saddle me with the second,—the complete identity of the thing cognised with the state of consciousness which is the cognisance of it,—that the passage is quoted. Whereas the immediate sequel of that passage shows that this could not be my meaning, inasmuch as I there call opposite aspects *ἀντικατηγορούμενα*, and give, as an instance of them, definitions and their definita. In fact, throughout the whole section from which the words are taken, I am careful to insist, that difference is as essential to identity, as identity is to difference, and as both alike are to every process of reflexion. That Knowing differs (and always must) from Being, except possibly in the one case (and that in the strictest sense ideal) of Omniscience, is not an assumption but a fact, discovered in due course of the analysis of Knowing. This passage, therefore, cannot be read as an assumption, that things cognised are nothing but the states of consciousness cognising them.

The next passage quoted comes from the same section of my work (*ibid.*, p. 35). "Be it observed (and this is the root of the matter), it is not sufficient to constitute an Existent, that two opposite *aspects* are put together. For that you need *elements*. Otherwise there is nothing of which the aspects are predicable, or of which they are aspects. The requisite 'something,' the existent, which has the double aspect, must first be constituted; and this it is by its constituent elements." Here again Mr. Stout suppresses the reference. In fact, the words occur on the very same page with an argument against a passage in Schelling, wherein he identifies Subject and Object; that is, does essentially the same thing which Mr. Stout charges me with doing. Schelling, I argue, can only identify Subject and Object "*on the assumption* (the words are italicised in the original) of one and the same existent as knowing and known". Yet Mr. Stout puts forward the

passage which he quotes, as one which will remove every doubt, that, in my theory, "every element of cognitive consciousness is also an element of the object cognised, and *vice versa*". If this were so, opposite aspects would be mere repetitions, or reduplications, one of another, somewhat like a reflexion in a mirror, and the term would then be of no value in philosophy at all. What the passage quoted from me really means is this,—Opposite aspects being taken as co-extensive with, though different from, each other, their conjunction in thought is not sufficient to prove the reality of the single thing, to which they are in thought taken as belonging;—a meaning which is the direct negative of that which Mr. Stout reads into it.

The two remaining passages are adduced to show that I constantly speak of objects as compounded of states of consciousness. The references for both are given, though with a slight inaccuracy in the case of the first passage (vol. i. p. 110 instead of p. 111), in which also the marks of quotation are omitted. The words are: "Our consciousness of things is the perception that *the feelings and thoughts composing them* are felt; our consciousness of self is the perception that those feelings and thoughts are feelings and thoughts". Quite true; I have nothing to add or to retract here. Those perceptions are our consciousness of things and of self. The italics, I may say, are in the original. What, then, have I to say further, in elucidation and justification of this passage?

In the first place I remark that I am speaking here, as elsewhere in my book, of the evidence we have for the existence of things. Well, this evidence, in the last resort, or (what is the same thing) in the earliest instances we can imagine of physical realities becoming known to us, consists in the fact that the feelings and thoughts are actually felt, which, at the moment of our first becoming aware of real things, *are* that of which we are immediately aware, *are* that content which alone gives meaning to them as real things, or *are* that of which what we afterwards call real things are composed. For observe we have *ex hypothesi* no prior knowledge of what physical realities are, or of what is meant by those terms. The perception which I indicate is the first formation, the ultimate foundation, of that knowledge, and of the meaning of those terms which are afterwards employed to express it and them. Previous to that perception there was a state of consciousness in which real things were wholly undistinguished from consciousness. After it and in consequence of it, real things are distinguished from

consciousness, and consciousness as thus distinguished from real things is the rudiment or foundation of our perception of Self.

Observe, secondly, that I include *thoughts* as well as feelings among the components of what we afterwards call things. Among them would be such thoughts as these, that visual sensations of colour, and tactual and muscular sensations of pressure and resistance, are occupying portions of spatial extension; and that such portions, when so occupied, hold together and move together, as what we afterwards call solids, independently of our other feelings. Of course it must be understood that these thoughts are not at the time expressed in the terms which we now use to express them, which would be plainly impossible at the moments when the conceptions expressed by the terms are in process of originating.

Thirdly, when I say that feelings and thoughts of the kinds indicated *are* what we mean when we speak of real physical things, or *are* that content which alone gives to those terms their primordial and ineradicable meaning, I do not intend to say that this minimum of meaning is all that we afterwards include, or may include, in our conception of real physical matter. But I maintain that all which we do include in it, whatever it may be, is provided for and covered by the words *and thoughts*, which I pointedly use in describing the original perception of it.

Such, I think, will be admitted by the unprejudiced to be the true interpretation of this passage, so far as Mr. Stout relies upon it in support of his polemic. It gives the ultimate meaning of physical matter, and the ultimate evidence for its reality. It does not profess, as Mr. Stout supposes, to resolve or evaporate physical matter into consciousness; nor can that meaning be in any way extracted from it. So far as our knowledge goes, no form of physical matter can ever be resolved or evaporated, save into physical matter again. And as to what *makes* physical matter hold together and move together, as we perceive it to do, or, in other words, to *be* matter, and in motion,—this is at once a question which does not come into the analytical part of philosophy at all, and one which will probably continue to be, as heretofore, far beyond the power either of philosophy or of science to answer.

The last of the four passages relied on by Mr. Stout is quoted from my *Philosophy of Reflexion*, vol. ii. p. 70: "If we take the objective aspect of complete empirical things, we find our object-matter consisting of solids in various

combinations and in various modes of motion. . . . All other qualities of objects . . . are attributes, are states of consciousness which arise in nerve substance on its being brought into connexion with these solid moving objects. The resistance, solidity, and motion, of the objects themselves are likewise subjective in the last resort; but this group of feelings or qualities are now sundered from the rest, and set apart in combination, to form the objects themselves."

Yes, are set apart by ourselves in thought, are thought of by us as real objects, in the way I have just above described, whereby they are distinguished, as *objects thought of*, from the thoughts (which are also objective to consciousness) whereby we think of them. That is my comment on the passage. Mr. Stout's is: "We have separated one group of *states of consciousness* as 'things,' and referred the other states of consciousness to it as its qualities or attributes". He notices solely that the content of our thought consists of states of consciousness, up to the moment of having a perception of reality, without noticing that, at that moment, thought itself thinks of one part of this content as a real and independently existing object, external to ourselves, separate from the very thought which is its counterpart, and which is (if I may so speak) internal to ourselves. Yet what more than this would Mr. Stout have? Does he want me to allow that physical objects are inside consciousness bodily? To me it seems that the evidence for their reality must always consist of states of consciousness, which are not physical.

Now, I will admit that the analysis of this process of thought, of the steps by which we arrive at and test the inference of real external objects, the existence and laws of which are independent of their subjective counterparts in ourselves, is not given with anything like sufficient minuteness in my *Philosophy of Reflexion*. But it would have been well if Mr. Stout had pointed out this defect, and confined himself to that, instead of charging me with an ultra-idealistic absurdity, from which almost every page of my book shows that I am wholly free. To show that my real meaning is what I have stated, and more particularly in support of the distinction drawn above between *objects thought of* and our *objective thoughts* of them, as applied to physically real things, I may refer to two of my Aristotelian addresses, *Philosophy and Experience*, pp. 47 *et sqq.*, and *The Reorganisation of Philosophy*, pp. 25 *et sqq.*[1]

[1] Both published by Messrs. Williams & Norgate, 1885, 1886.

I can easily imagine Mr. Stout's deriving "some comfort" (*P. A. S., ubi sup.*, p. 111) from finding an ally, as he erroneously supposes, in Prof. W. James. The passage which he quotes from Prof. James abounds, as might be expected, in good sense and acumen. But, inasmuch as it controverts no position which I have ever maintained, it affords no support to Mr. Stout's polemic.

I pass, therefore, to the second section of Mr. Stout's assault, that in which he attacks my conception of Primary Consciousness as the basis of Reflective. Here again his failure to understand me is complete, and for the same reason as before, namely, his inability to take, or imagine others taking, any view of the phenomena of consciousness except a psychological one. My distinction of those phenomena, the whole phenomena of consciousness, into primary, reflective, and direct modes,—my distribution of them under those three heads,—is philosophical and not psychological. By which I mean, that I therein classify modes of consciousness with regard to the total knowledge which they convey to us of the universe of things, and not with regard to their genesis in distinct functions of the mind or Subject. Not that these functions are neglected, either in framing or in describing the classification, but that they are not taken as final for philosophical purposes. Mr. Stout, however, understands the classification as if it were a new classification of psychological functions; for with him, apparently, it must either be that or nothing.

My primary consciousness is the mode which from this point of view he especially attacks. He says, what is quite true, that it consists of heterogeneous phenomena, namely, states of consciousness belonging to sentience, and states of consciousness belonging to thought, which are two very different psychological functions. But why should it not, from the philosophical point of view; I mean, when the phenomena both of sentience and of thought, taken in their lowest terms, are considered in relation to our total knowledge? I do not exclude phenomena of sentience and thought from my remaining heads of reflective and direct consciousness. What I say is, that in their lowest terms they are the material out of which the phenomena of those more complex modes of consciousness and knowledge are built up.

They are in fact the form in which experience is actually experienced by adults at the present day, though to discriminate them as distinct strains or elements in our con-

crete experience demands considerable attention, owing to the fact that, instantly on being experienced, they are taken up and incorporated into a system of already acquired knowledge. As for instance, we see a patch of colour, and say we see a tree; not stopping to consider that what we *see* is a primary sensation, and that what we *say* we see (the tree) presupposes many and many previous efforts of *thought*, in grouping primary sensations into what we call real external and independent objects.

Perceptions of this type (the tree), which presuppose the distinction between Subject and Object to be already familiar to the percipient, are those which I class as cases of direct consciousness. And it seems to me irrefragable, that in passing from primary to direct perceptions (when both are looked at philosophically or as modes of knowledge, and not psychologically or in respect of their genesis in the Subject), there must intervene an intermediary mode of perception, which leads up to our first, or analytically lowest, idea of objects, as distinguished from the Subject or percipient, by first differentiating the primary experience, which was till then undifferentiated in this respect, into opposite aspects, subjective and objective, as the necessary preliminary to our subsequently differentiating the objective aspect into real external objects on the one side, and our perceptions of them on the other; which, it will be remembered, is the perception which has been already touched on in the former part of my reply. And this intermediary mode is that which I call reflective consciousness.

The reason for my including both phenomena of sentience and phenomena of thought, taken in their lowest terms, under the head of primary consciousness is this. Man as we know him in pre-philosophic experience,—by which I mean both common-sense experience and scientific,—is so organised as in very many, perhaps most, cases to react upon and modify his sensations, immediately upon receiving them. He is not receptive only, but also reactive; and not reactive *ad extra* only, but also *ad intra;* that is, he compares, groups, and otherwise arranges his sensations, so as to make them fit in with one another, and be held together in memory with the least amount of effort to himself; that is, in brief, he thinks as well as feels. Some reactions of this kind, that is, some rudimentary acts of thought, are, in my opinion at least, requisite as antecedent conditions both of his forming the ideas, and of his perceiving the objects, called, one the Subject, the others Objects external to the Subject; just as sensations are requisite as antecedent

conditions of thought being exercised in reaction upon them. That is why I include thoughts as well as feelings in my primary consciousness, my purpose being, as I have already said, to classify modes of consciousness with regard to our total knowledge, and not with regard to their genesis in the Subject. With the question whether thought is equally primitive, psychologically speaking, with feeling, I am in no wise concerned, though Mr. Stout, oddly enough, seems to think (*P. A. S., ubi sup.*, p. 118) that I am bound to acknowledge that it is so. Such is my position with regard to primary consciousness.

But what says Mr. Stout? "I can indeed frame," he says, "a fairly distinct idea of a series of immediate experiences without reference to an object. But I cannot understand how such a series can contain 'thoughts' as well as feelings. A thought which thinks of nothing is to me a contradiction in terms" (*ibid.*, p. 114). There is surely a great misunderstanding here. The thoughts which I intend and describe, as will presently be seen, are not 'thoughts which think of nothing'. The sensations which they compare and group are the objects of which they think. Yet Mr. Stout would saddle me with a contradiction in terms. What can *he* be thinking of?

But now to proceed. I am fairly entitled, seeing that consciousness, experience, and what we call knowledge, are facts, to assume that there is something or other upon which their genesis in man depends, subject, of course, to any disproof of that idea which may result from the analysis of consciousness *per se* and in its entirety. And, further, I am entitled, subject to the same proviso, and for the purpose of describing them as phenomena, to use the results of prephilosophic knowledge in explanation of their genesis. This I do in the following passage, which Mr. Stout quotes from my *Philosophy of Reflexion*, vol. i. p. 109: "Low organisms may clearly have feelings of heat and cold, pressure, light, and so on, without referring these to independent objects around them. Organisms better endowed have more complicated series of feelings; comparison of feelings becomes possible; groups of feelings can be put together and distinguished from other groups. But this is a process not of feeling only but of *thought;* and still it has not been necessary to suppose any reference of these feelings, groups of feelings, or comparison of feelings, to independent objects" (quoted *P. A. S., ubi sup.*, pp. 116-117). It will be seen that I refer to the endowment of the human organism to account for the genesis of thought in man as well as for that of sentience.

Having quoted this passage, Mr. Stout immediately proceeds: "Now my difficulty is this. I can understand how it is that the simpler phase [of my primary consciousness] involves no reference to an object, being a purely anoetic experience. But I utterly fail to understand how the later phase grows out of this, or how it can be regarded as a more complex modification of it. *A fortiori*, I fail to understand the transition to the reflective stage in which subject and object are distinguished from each other. On the other hand, if I begin with the more complex phase of primary consciousness, I do not see how it can be properly described as objectless." Why, it has *not* been described as objectless. It has been described as not including a reference to *independent objects*, which is a very different thing.

Mr. Stout repeats this criticism in the following paragraph. He then proceeds: "Now, as I said, this puts me in a dilemma. If I begin with the simpler stage of primary consciousness I find an impassable chasm gaping between me and reflective consciousness. If I begin with the more complex, in which *thought* is possible, I do not see that there is any essential difference between them" (*ibid.*, p. 117).

This dilemma arises entirely from Mr. Stout's exclusive preoccupation with the psychological point of view and method. He is thereby led, first, to separate the two elements of my primary consciousness, sentience and thought, and make them into "stages," an earlier and a later; and, secondly, to regard thought as necessarily including a reference to an independent object, without which it would be wholly objectless and a contradiction in terms. For these views come readily to any one who adopts the difference between Subject and Object as an ultimate *datum* and starting-point in these matters. From that point of view no perception is possible, save perception of the "direct" type.

Having first demolished the possibility of the first horn of the dilemma which he propounds, Mr. Stout proceeds to demolish (as he fondly imagines) the possibility of the second. "Now," he says at p. 118, "let us try the alternative view. Let us begin with a primary experience, which can think of its own states, their qualities and relations, but not of physical things. Immediately we are overwhelmed by a flood of perplexities. How does this primary consciousness, which is also a thinking consciousness, get itself evolved out of the earlier primary conscious-

ness which has no thoughts? If thought is really primitive, why does not Mr. Hodgson frankly and explicitly acknowledge it as a fundamental and inseparable element of human consciousness—at least co-ordinate with protensive and extensive form and with feeling?"

Get itself evolved! Frankly and explicitly acknowledge! What! Does he take me for a Hegelian? The passage which he has himself quoted, and which I have quoted again just above, shows that I refer to the endowment of the organism to account for the genesis, for anything that can be called evolution, in the phenomena of consciousness. It is there if anywhere, not in the states of consciousness themselves, not in thought assumed as a primitive, fundamental, and inseparable element of human consciousness, that the real or efficient conditioning of consciousness lies. Besides, he must have forgotten a passage in my *Philosophy of Reflexion* (vol. i. p. 226) containing the words: "Idealist (or rather *Reflexionist*) in philosophy; Materialist in psychology, and indeed in all the sciences". The genesis and development of consciousness in man are questions for psychology, inasmuch as they relate to the really conditioning agency, upon which its existence in man depends. I at least can see no evidence of any conditioning agency residing in consciousness itself. No such agency in it is revealed by its analysis. But I am aware that questions of genesis and questions of analysis are much the same thing for psychologists of Mr. Stout's type, when they dip into philosophy. Hence his perplexity and bewilderment.

And here I will bring this article to a perhaps welcome close. It contains as clear a statement and justification of the doctrine of reflective consciousness which is set forth in my *Philosophy of Reflexion*, and impugned by Mr. Stout, as is consistent with the brevity required by the occasion. And as the two remaining pages of Mr. Stout's polemic are devoted merely to setting forth the perplexity which that doctrine causes him, in the form of questions which are not essentially different from some already answered, I will content myself with hoping that what I have already said in elucidation of it may prove a sufficient response.

There remains but one little matter to be noticed. At pp. 118-119 of his paper, Mr. Stout quotes a rather long passage from my *Philosophy of Reflexion* (vol. i. p. 114), which, he says, is to him "the most perplexing to be found in Mr. Hodgson's writings". From this passage he has inadvertently omitted a whole sentence, the penultimate sentence of the passage. And as the omitted sentence gives, or

attempts to give, some reason for the very circumstance which Mr. Stout represents as causing his chief perplexity, the omission is certainly to be regretted; though I do not suppose for a moment that Mr. Stout's perplexity would have been removed by its insertion. All I can hope is, that those who may have read the passage as given in Mr. Stout's polemic, may by some happy chance be guided to read it as it appears in the original.

[I am glad that the paper which I read before the Aristotelian Society has succeeded in its main object. The chief purpose of that paper was to elicit from Mr. Hodgson an explanation of certain points in his system. On the other hand I am sorry to say that I do not find this explanation satisfactory. A detailed rejoinder must be reserved for another occasion. I here confine myself to two general remarks. (1) If, according to the *Philosophy of Reflexion*, a state of consciousness is related to its object as G. F. Stout, the Editor of MIND, is related to G. F. Stout, the friend of Mr. Hodgson, my difficulty remains untouched. For on this view the subjective state and its object are the same existence considered in different ways. It seems to follow that we cannot think about what does not exist, for the subjective state exists whatever we may be thinking about. It must be remembered that when Mr. Hodgson speaks of consciousness he means "finite" consciousness. (2) In criticising the doctrine of the three stages, I speak of them as succeeding each other in time because Mr. Hodgson does the same. His exposition reads like a speculation on the early history of the infant mind. I have explained in my paper that I regard this mode of statement merely as an artifice. When I urge that he has not shown how one stage can pass into another, I mean, according to my express statement, that he has not shown how the one can become the analysis of the other.

G. F. S.

V.—DISCUSSIONS.

MR. BALFOUR'S REFUTATION OF IDEALISM.

Mr. Balfour's attack upon Idealism in the last number of MIND is part of a work "not especially designed for philosophic readers". It is very brief, and, as the book from which it is extracted is not yet published, it cannot be interpreted with the assistance of its context. But since the wide class of readers likely to be interested in the book will, in so far as they are unphilosophical, be uncritical upon that with which they are unacquainted, it is peculiarly appropriate that the philosophical considerations to which they are about to be invited should first put forward a claim to justification upon purely philosophical grounds. The brevity and the fragmentary nature of the article are, indeed, unfortunate, because a criticism of it must be limited in its scope by a recognition of the fact that the article cannot in fairness be taken to imply more than it actually contains; still, as Mr. Balfour regards it in its present form as raising "certain fundamental difficulties" in the way of Idealism, I think he will admit that those who retain their confidence in Idealism are justified in examining the arguments he has directed against them.

Mr. Balfour tells us that in attacking Empiricism the Idealist has pointed out that thought-relations or categories are necessary to constitute every object of knowledge, and hence has arrived at a conception of reality as consisting in a system of thought-relations and a self-conscious subject which is their source. It is to be observed that against the negative side of the Idealist's work as destructive of Materialism Mr. Balfour raises no objection. He openly agrees with it. "We may grant without difficulty that the contrasted theory which proposes to reduce the universe to an unrelated chaos of impressions or sensations is quite untenable." Of course agreement need not amount to positive approval, and this statement, therefore, cannot be construed by the Idealist as the latter; I merely point out that he objects not to the destructive power of the Idealist's principle, but to its constructive capabilities. He complains that it is impossible to construct out of the principle he has just enunciated an adequate theory of reality. I hope I am not misrepresenting Mr. Balfour, but his argument appears to me to be based on the supposition that his statement of the above-mentioned principle does contain the material out of which the Idealist supposes a complete explanation of reality is furnished. I cannot believe that any Idealist would be so foolish or unreasonable in his expectations as to suppose that he has only to convince people that Materialism is untenable in order to convince them that Idealism is satisfactory. Take the case of any man of ordinary intelligence and caution who,

having been originally an Empiricist, is afterwards induced to admit that thought-relations and a thinking subject are necessary to constitute any reality. Would he instantly dub himself an Idealist, and jump to the conclusion that he has now got hold of the key to all the problems of the universe, and actually unlocked them? I think not. Beyond recognising that his former sensationalism was erroneous and his view of thought inadequate, he would be no wiser than before. He would, however, probably be willing now to listen to what the Idealists have to say about the nature of these thought-relations or categories, and, after they have stated their case, he will pass such judgment upon Idealism as he thinks fit. Until he learns *what* thought-relations are the mere demonstration *that* they are has no positive import for him; they may be good, bad, or indifferent, for anything he knows. And Idealism does not ask him to worship the unknown. But if it is unwise to approve of a theory before hearing its contents, it is unfair to condemn it before stating them. Now, Mr. Balfour states that the Idealist constructs reality out of relations; he even generously admits that if this construction were valid certain desirable results would follow; but as he does not define the content of these alleged constitutive elements, I do not see that he is logically justified in asserting that they are incapable of doing their work. The mere reiteration that everything is made out of thought is undoubtedly wearisome, and, save as an antidote to Materialism, explains little and satisfies nobody. But Idealism claims to have done much more than this. It claims also to have shown what are these constituting thoughts and how they are constitutive; if we ignore the latter work and then say that the former is unsatisfactory as a metaphysical theory, what we say is true, but we are talking not of Idealism as complete philosophy, but of a very small and preliminary portion of the Idealistic theory.

Without further troubling himself about what the Idealistic theory contains, Mr. Balfour proceeds to emphasise its omissions. In all experience, he says, there is a "refractory" or irreducible "element" which "though it cannot be presented in isolation nevertheless refuses wholly to merge its being in a network of relations". If this charge is to be logically substantiated he must, I take it, define what it is that has been omitted. What is this recalcitrant "something" between which relations should subsist? Mr. Balfour does not define it. Possibly that is from the necessity of the case; for, since it cannot be presented in isolation from thought, it would seem to be impossible to say anything about it exactly in so far as it is not a thought-concept. This difficulty is sometimes strangely urged by opponents of Idealism in justification of their objection; ought they not, however, to be reminded that it amounts rather to a confession that their accusation is one which, out of the nature of the case, is incapable of logical demonstration? It is an assertion which does not amount to a proof that a difficulty exists.

Mr. Balfour is particularly severe upon thought-relations. He first says there are (for the Idealist) such conceptions, but omits their content; and then says that because they omit a "something," which he omits to define, they are "an illegitimate abstraction".

The "thought" which is the material of Idealism is accused of being abstract. The Idealist, however, says that it is concrete. Who is to decide? Well, I think that if Mr. Balfour wishes to make out his case the first thing for him to do is to examine the very careful distinction which most Idealists have taken the trouble to draw between abstract thought and concrete thought, and to show either that the distinction is unmeaning or that the Idealist who thinks he is employing the latter kind of thought is really employing the former. It is of course the simplest thing in the world to *make* "relations" or any other species of concept abstract. To do so we have merely to strip them of their content. But until some such proof as I have suggested is forthcoming it is not logically proven that, because Mr. Balfour's "thought-relations" are abstract, the Idealist's are. The disregard of those who criticise Idealism for this distinction between abstract and concrete seems the more unkind, because the distinction is no abstruse refinement of modern philosophy, but one which has been common property since the time of Aristotle. Space does not permit me to draw out the distinction to its full import; but perhaps I may be permitted to suggest an elementary illustration of it. Man (A) may at first appear to consist of purely material elements (m). But further observation shows that he possesses furthermore a $\psi\upsilon\chi\eta$ (s) or principle of life ($A = m + s$). Next we see that m and s are not isolated or independent but inseparably and essentially connected ($A = m \times s$). But this conception of two interacting elements is unsatisfactory, because the fact of life entirely dominates the entire nature of man, and we must accordingly interpret him afresh in the light of this principle ($A = S$). S is concrete; s is an illegitimate abstraction. So it is with thought. The Materialist or Empiricist says that reality (R) consists entirely of matter or feeling (m) The Idealist reminds him that he has left out thought (t). Whereupon he, if he be not very stupid, admits that $R = m + t$. Then the Idealist points out the presence of thought in this m; admitting this, the Realist alters his equation to $R = (m + t) + t$. The Idealist again detects the presence of thought in m; and the Realist replies by substituting for this second m, $m + t$, —so the process goes on *ad infinitum*, with two highly unsatisfactory results. The Idealist is voted an unmitigated bore; and the more t's the Realist is compelled to concede the more tenaciously he insists that there is still a "something" else which must not be omitted, and apart from which even an infinite series of t's is still an illegitimate abstraction. He is quite right. Since t has been set up as at once antithetical and supplementary to m, it cannot divest itself of the taint of its origin; it must when

taken *per se* always remain abstract and incomplete. But the object of the Idealist is to prove to the Materialist that the difficulty raised by this constantly recurring *t* demands as its solution a re-interpretation of the two abstract factors in the light of a concrete principle which comprehends and is not antithetical to *m;* this principle he calls concrete thought. This is undoubtedly a very imperfect indication of what the Idealist means; I only intend it as a suggestion that there is a good deal to be proved before the charge of abstraction can be substantiated against him.

As Mr. Balfour ignores this distinction, it is easy and plausible to throw ridicule on the supposed pretensions of the Idealist to "create" the universe out of "pure thought". Before, however, we saddle the Idealist with the absurdity of holding that "this concrete world of ours, down to its minutest detail, should evolve itself *a priori* out of the movement of 'pure thought,'" or that "experience itself would seem to be a superfluity," three considerations should be borne in mind: (1) the Idealist does not attempt to create the universe out of abstract thought; (2) he does not create it out of concrete thought, because he regards the two as identical; (3) he does not create it at all, because it is already created; he only tries to understand it. And as I cannot believe that all Idealists are *ex hypothesi* mad, I think there must be some little misunderstanding which prompts the accusation that they are trying to do what is obviously impossible and absurd. Therefore, without in any way damaging Idealism, Mr. Balfour's demand may be readily conceded that "the self-conscious 'I,'" taken in abstraction from the thoughts which are its objects, must not be invested with a "causal or *quasi*-causal activity," and that neither "a bare self-conscious principle of unity" nor a "'manifold' of relations"—taking the term "relation" in the sense employed by Mr. Balfour—can be regarded *per se* as constituting or even contributing separately towards reality. His estimate of the consequences which this concession involves is, however, open to criticism.

From the last-mentioned concession Mr. Balfour elicits certain difficulties. Before proceeding to discuss these difficulties it is desirable to ask—supposing the difficulties to be really forthcoming—against what philosophical theory, precisely, are they valid? Against that theory, I take it, which regards reality as consisting of a "bare self-conscious principle of unity" and a manifold of non-material and in themselves non-existent "relations". If I have shown cause for holding that this is very far from being an adequate statement of the Idealist's theory, it follows that the difficulties about to be elicited cannot, without further justification, be regarded as difficulties against Idealism.

The first difficulty concerns religion. The God of religion "must be something more than the bare 'principle of unity' required to give coherence to the multiplicity of Nature. Apart from Nature He is, on the theory we are considering, a mere

metaphysical abstraction. . . ." On the other hand, "in combination with Nature He is no doubt 'the principle of unity' and all the fulness of concrete reality besides"; but this conception also is objectionable, because "it holds in suspension, without preference, and without repulsion, every element alike of the knowable world. Of these none, whatever be its nature, be it good or bad, base or noble, can be considered as alien to the Absolute: all are necessary and all are characteristic." Mr. Balfour, therefore, thinks that he has got "the school of thought with whom we are at present concerned" into a dilemma. If they adopt the first alternative which would identify God with "a mere metaphysical abstraction" they are obviously in a difficulty; yet this is the alternative to which they would appear to be driven, so serious would appear the obstacles to an acceptance of the second alternative. But, before accepting this conclusion, I should like to examine this second alternative and ask if it is quite fair. I must confess, however, that I am not quite sure that I understand it, because Mr. Balfour has not definitely explained what he means by that very ambiguous term "Nature". As far as I can see, "Nature" must, in so far as his remarks apply to the theory he is criticising, be equivalent to "a manifold of relations". Now, to say that God if taken "in combination with" Nature, in this sense of the term, is saddled with all the baseness and iniquity of the world implies the assumption that "relations" are real—not indeed apart from reference to the "principle of unity" but—in isolation from one another or in isolated groups. But I thought that the theory which Mr. Balfour is criticising said, not merely that "relations" demanded a unifying principle, but also that they constituted a manifold or system, and that therefore the reality of anything was constituted not simply by a detached reference to a thinking subject, but by its position in that system; or, in other words, that a thing was real by virtue of its relation to everything else. This is a consideration which seems to have some bearing on Mr. Balfour's accusation. For example, let x be one of those bad or ignoble things in Nature to which Mr. Balfour refers. Now, if x is real by the mere fact of isolated reference to a "Pure Spiritual Subject" or principle of unity, I admit that the "Pure Subject" which contains all reality must contain a good many x's, and therefore a good deal that is bad. But the kind of philosopher at present referred to would not, I think, admit x to be a metaphysical reality. x, I suppose he would say, consists of certain relations which ramify in all directions until they become coextensive with reality; to this completed system alone is the term real strictly applicable; but because x (which = a particular grouping of a few relations regarded in isolation from the rest) bears the characteristic "badness," it does not follow that the entire system bears that characteristic; and because x is not real *per se*, it does not follow that when we deny that God bears the characteristic of x we are denying that He contains any characteristic of reality. The theory which denies that x is a reality may be in disagree-

ment with that "common-sense" which capriciously applies the term "real" to the most frivolous objects, but it at least avoids the absurd profanity of regarding as characteristic of God, *e.g.*, all the petty vices and follies of nineteenth century civilisation. For these reasons I think that Mr. Balfour's second alternative is not adequately presented, and that, therefore, the dilemma breaks down. I think also that there are three general considerations which tend to invalidate the force of his demonstration: (1) it is not strictly logical to assume that what is the attribute of a part of a thing must necessarily be an attribute of the whole; (2) the relation of a whole to a part is inadequate to express the relation of God to a finite existence; (3) Idealism is by no means tied down in its description of the Deity to the very cramped conception of a "manifold of thought-relations" implying a unifying principle of consciousness.

Mr. Balfour goes on to discuss "the ethical value of that freedom which is attributed by the Idealistic theory to the self-conscious 'I'". After pointing out that the freedom of a perfectly abstract "I" is of no practical moral utility, he adds in a note, as a kind of after-thought, that "some of the ethical writers of the Idealist school" have a different view of freedom. "It is the individual, with all his qualities, passions, and emotions, who in their view possesses free will." But this kind of freedom "does not exclude determinism, *but only that form of determinism which consists in external constraint*". Whereupon Mr. Balfour promptly refutes it by applying the stock deterministic argument (*vide* note, pp. 433-4). With regard to this refutation, I wish again to emphasise the fact that it is impossible to refute a theory until it has been stated. Now it is, I believe, the main point of the Idealist's theory of freedom that consciousness of self-determination and determination by the consciousness of an end to be realised are utterly different from the merely causal determination of one act by that which immediately preceded it. This is a consideration, however, which Mr. Balfour ignores; therefore I would suggest that when he says the theory he is criticising "destroys responsibility" and makes a man's character "the outcome of causes over which he has not, and cannot by any possibility have, the smallest control," he is criticising not current Idealism but some species of philosophising which may possibly have existed something over 2000 years ago, before Aristotle defined the voluntariness of a human agent and the responsibility of his acts.

In the last six pages of his article Mr. Balfour raises a number of extremely interesting difficulties. How, he asks, are we to distinguish the pure from the empirical Ego, when we cannot say either that they are absolutely identical or absolutely different; and it is unmeaning to say that they are two aspects of the same thing? When the Idealist talks of Thought, *whose* thought does he mean? God's or man's?—*i.e.*, I suppose, how is thought *qua* eternal to be distinguished from thought as an occurrence to a

finite being in space and time? How is one self or personality to be distinguished from another? How does a man come to know any other consciousness than his own? How does the Idealist determine the sphere in which each of the categories, *e.g.*, causality, is applicable, and demonstrate the necessity of its applicability within that sphere? With regard to all these difficulties I can only express my wonder that Mr. Balfour propounds them as objections to Idealism and does not rather intend them to serve as recommendations to its study. These are the very problems, it appears to me—though I do not profess to have exhausted their meaning—upon which Idealism is particularly interesting and enlightening. They cannot, of course, be summarised and settled in a few pages of popular literature; they involve us in far-reaching and difficult subjects, such as the relation of the Infinite to the Finite, the import of time and change in a system of completed reality, the difference between Subjective Idealism and (1) Transcendental, (2) Absolute Idealism, and the nature of metaphysical demonstration. Which is tantamount to saying that Idealism may be shown to be uncongenial to unphilosophical readers, not on account of any superficial absurdity it contains, but because the study of it is a serious business.

Mr. Balfour warns us that neither his statement of Idealism nor the arguments he brings against it are complete. So too, to prevent misunderstanding, I would point out that my attempt to defend Idealism is extremely imperfect, and ignores a great many objections which might be and have been brought against it. It is only an endeavour to show that Mr. Balfour's arguments cannot in their present form be regarded as detrimental to current Idealism.

Since writing the above, I have had the opportunity of reading Prof. Seth's article in the last number of MIND, and there notice that he, like Mr. Balfour, employs a distinction between knowledge and reality as an argument against Idealism of the Hegelian type. I do not wish to interfere either with such of Prof. Seth's reasoning as is directed purely against Prof. Jones or with his method of controverting sceptical sensationalism, but merely venture to state some reasons for thinking that Prof. Seth's position does not invalidate my previous contention that Idealism has nothing serious to fear from the critics who would condemn it as failing to account for "being".

Suppose a book written on any scientific subject other than philosophy—on fossils, let us say—were to be reviewed after this fashion:—many as are the descriptions, classifications, and theories *about* fossils which this book contains, yet of real actually existent fossils not one particle is to be found therein; but as all descriptions and theories are mere universal abstract terms, the minutest fragment of a real fossil is better than them all put together, for it at least is individual and concrete. With regard to such a criticism I think I may claim general assent to

three propositions. (1) What the critic says is perfectly true, yet, because it implies an expectation of an utterly impossible feat, is quite absurd and harmless. (2) But if the critic can prove that the writer of the book really does believe that ideas of fossils are identical with or can be converted into actual fossils, then every one must agree with the critic that the writer is, in so far as he holds this opinion, insane. (3) At the same time, even though it be proved that the writer suffers from this peculiar delusion of thinking that theory can "thicken," literally, into existence, yet his book may still remain *qua* theory perfectly unimpeachable; the critic has shown the absurdity not of the theory but of a confusion between theory and something utterly different.

To return to philosophy, Prof. Seth says (MIND, p. 4) that what he complains of in the Hegelian philosophy "is just its tendency to hypostatise thoughts or categories and thus to put knowledge in the place of reality"; and in *Hegelianism and Personality*, when talking of Hegel's fallacious treatment of Being, he says (pp. 119-20): "But when we ask for real bread, why put us off with a logical stone like this? It is not the *category* 'Being' of which we are in quest, but that reality of which all categories are only descriptions." . . . "A living dog is better than a dead lion, and even an atom is more than a category" (p. 124). And again (pp. 125-6): "The meanest thing that exists has a life of its own, absolutely unique and individual, which we can partly *understand* by terms borrowed from our own experience, but which is no more identical with, or in any way like, the description we give of it, than our own inner life is identical with the description we give of it in a book of philosophy". The many passages of which these are typical appear to indicate a method of criticism upon which the above proposition (1) is the appropriate comment. The absurdity there indicated is, however, less obvious in Prof. Seth's case, because he generally raises concurrently another issue and tries to show—with what success it is not now my business to inquire—that Hegel and his followers are, if logically interpreted, guilty of that curious species of insanity mentioned in (2). Assuming, for the sake of argument, that he has established this point, I yet contend that the absurdity indicated in (1) remains as palpable as ever, and that, as remarked in (3), no objection has been raised against the theory as such. Neglect of this distinction seems to me one of the main reasons why the Hegelian system has been saddled with so many iniquities which do not properly belong to it.

To this reason must be added a second. Hegelians cannot be for ever pointing out the difference between their theory and Subjective Idealism. After a time they expect it to be taken for granted. Whereupon the critics swoop down upon their "thought," treat it as identical with what the subjectivist means by "thought," and shrivel it up before the all-devouring sun of "real existence". But it is unfair to attack an opponent by attributing to him errors against which he emphatically protests.

When the plausibility of its side-issues is removed, is not such treatment enough to make the Hegelian retort that Prof. Seth hardly seems to avoid the counterpart of the error with which he himself charges subjectivism? (MIND, p. 24). He makes impossible demands of Hegelian metaphysics, virtually saying that it cannot be a metaphysics of reality without being reality itself—and because these demands are not met, he impeaches the validity of Hegelian metaphysics in general.

Should Prof. Seth happen to read these remarks, I imagine it will strike him as remarkably perverse in me that I try to reduce his charge against Hegelianism to such a senseless demand, instead of recognising that what he really means, by accusing Hegelians of neglecting Being, is that there is an internal defect and omission in their theory itself. That, at least, is what I should like him to think, because then I hope he will be inclined to agree with what I want to say now. Is it not after all rather unprofitable to fling about charges of absurdity, hypostatisation, and insanity? Then suppose we cut them all away, as incapable of bearing any fruitful result, and also lop off from Hegelian criticism all irrelevant matter appropriate only to an attack on Subjectivism or other non-Hegelian heresies. I think we can get hold of the main point then. Under the term "being" Prof. Seth denotes a series of metaphysical considerations the omission of which vitally weakens Hegelian theory. Then one naturally expects to be told both what these new considerations are and how they can be so introduced into philosophy as to infuse every element of it with a new and intrinsic importance. On p. 3 of his article he tells us that he is under no necessity, because he dislikes Hegelianism, to substitute a better theory. But his objections, to be accepted as valid, must be substantiated; and I do not see how that can be done unless it is proved what good would accrue to metaphysics from a reintroduction of "being". If his "living dog" is so much better than a "dead lion" I wish he would make him bark a little, in order to demonstrate incontestably his superior metaphysical vitality. If "being" is more than an ontological spectre with which to frighten nervous Hegelians, it must be made actually to perform useful and substantial metaphysical work. Until that is done serious difficulties seem to obstruct the idea even of the possibility of the suggested reformed metaphysic of existence. For example, such a metaphysic would surely have to include an account of spiritual reality. Yet how could it, consistently with its assumed purpose of dealing strictly with existence? The existential part of a picture is constituted by certain ingredients of colours and canvas, but an account of them, despite their existential necessity, would hardly be a satisfactory account of the picture. This is a pointless remark, I admit, provided that ontological "being" is something quite unique and in no way reducible to or identical with material being. But it may serve to remind us that ontological "being" must be really treated according to its unique character—not

simply be *said* to be unique and then treated in terms merely applicable to material existence. Prof. Seth frequently uses for philosophical purposes (in *Hegelianism and Personality*) such terms as point, unit, centre, individual, and atom. What is the benighted Hegelian, only too anxious for enlightenment, to make of them? His own treatment of such conceptions, he is told, is hopelessly deficient. He can learn from mathematicians, it is true, fairly obvious meanings of "point," "unit," and "centre," and he may gather from the scientist some notion of ultimate, irreducible, and indivisible elements of material reality; but he has no right to suppose that Prof. Seth would reduce metaphysics to either mathematics or materialism. Then surely it is reasonable to ask Prof. Seth to define his terms and not put us off with metaphors of a spatial, arithmetical, and material character. For though metaphor may be a useful and even necessary vehicle of language, it is meaningless until we understand what it is meant to illustrate. It cannot convert the spectre of a "being" into the substance of an idea.

I venture to think that there are Hegelians who find objections, somewhat similar to those I have vaguely indicated, standing in the way of Prof. Seth's proposal of reform. If however they are groping in the dark and running their heads against blank walls of "being" which do not exist, will not Prof. Seth grant them a clue? I believe he says somewhere that Kant's "thing-in-itself" indicates an important truth which his Hegelian followers have failed to grasp. Perhaps that, then, is the beginning of the clue. But I suppose Prof. Seth would admit that it is not, as it is to be found in Kant, unravelled very far, and certainly not extended to the lengths of a complete ontology. How then, one would like to know, is it possible to accept Kantian Dualism and yet advance beyond it in such a way as to avoid pre-Kantian Realism?

Or has the mystery already been solved by Lotze, and is his position the vantage-ground which Hegelians are challenged to assail? A clear understanding on that point might assist in bringing matters to a decisive issue.

ARTHUR EASTWOOD.

A REPLY TO A CRITICISM.

The long "critical notice" of my volume in the last number of MIND hardly pretends, I suppose, to be an ordinary review. It seems not to be an account or estimate of my work, but a mere attack on what the writer takes to be its fundamental errors. I am sorry for this, and I do not see what good can come of it. From a criticism which would teach me to question what wrongly I have assumed, or which from an admitted basis would point out my inconsistencies and defects, I have, I am sure, much to learn; and for any such criticism I am sincerely grateful. But an assault which is based tacitly on assumptions which I have rejected, or which consists in the mere assertion of doctrines such as I cannot fairly be taken either to be ignorant of or to hold—how is anything like this to be of use to me or indeed to any one? With this reflexion, inspired not for the first time by Mr. Ward's way of criticism, I enter on the profitless task of a reply.

There are first (p. 109) some prefatory statements about method which to me seem erroneous, but which, being mere assertions, I leave to themselves. Then, on p. 111, the actual attack is begun. The general nature of Reality as held by myself is called in question. My critic starts characteristically from a tacit assumption as to "purely formal" truth. He seems unaware that any one could regard his doctrine as an exploded fallacy, or could hold that a truth if purely formal would be no truth at all. But on the same page he has also, I observe, made a reference to Hegel. He then (p. 112) proves that the Universe need not be "an absolute unity," and that I at least have no right to say more than that it "is". The sequence of ideas seems here obscure, and the meaning may have escaped me, but I must deal with the arguments as rightly or wrongly I understand them.

First, as to the "is," my critic appears to assume that "all determination is negation," and that hence I must qualify the Universe negatively or merely by "is".[1] He does not ask if I share this belief about negation, and, to speak broadly, I do not, nor do I know why I should be taken to do so. My critic fails to seize the distinction between further determination within a universal and its limitation from without. And he brings out the familiar dilemma between what is "conditioned" and what is "clear of conditions". But of course the Absolute is that which contains its conditions, and in this sense only is unconditioned. So much at present for the mere "is".

Then as to the oneness of the Universe I argued in this way. Here is the world before us and in us, a world full of content

[1] I do not attribute to Mr. Ward the assertion that that which has no competing predicate must be simply "is". That of course would be a bare and naked *petitio*.

and diversity. To try to explain this away would clearly be foolish, but, as we take the world up, it contradicts itself. In that character then we must assume that our world is not true or real, and yet, because it is, it must somehow with all its diversity be real. But (I argued) it cannot be plural, for that is self-contradictory, and every division and distinction presupposes and rests on a unity. Hence we are forced to take the whole mass of facts as all being one in such a way as *also* and *without abridgment* to be free from discrepancy. And as to the *word* "unity," that of course matters little or nothing. Now, how does my critic meet this position? His statement is so obscure that I must quote it.

"It would be absurd, no doubt, to talk of two universes, but the denial of plurality is only tantamount to the affirmation of unity when we are dealing with the discrete. To this, whether as one or many, the continuous is opposed. Thus it may be absolutely true that the universe is, and still remain an open question whether it is an absolute unity and not an indefinite continuum. No doubt the latter alternative is cheerless enough; but Mr. Bradley seems to be more or less vaguely aware that it is there."

The statement about the denial of plurality looks rather like a naked *petitio*, but I pass this by. We have to deal (I have urged) somehow with the given mass of facts. Everything discrete or otherwise, the whole world of things and selves with all their contents and relations, we have on our hands. And Mr. Ward seems to assert that all this can, without any self-contradiction, be "an indefinite continuum," that it is cheerless and that of this I seem more or less aware. But what, as I understand it, has no meaning, has no power to trouble me. And the idea that the universe is "an indefinite continuum" is to me meaningless or self-discrepant. A continuum, not one and identical in its diversity and diverse in its unity, is, in the first place, to my mind, no continuum at all, nor do I quite understand how my critic is able to be unaware of this. As to "indefinite," whether it is meant to deny distinctions or limits or something else—we are not informed; but in any case it seems to increase the internal discrepancy. And, since this possible alternative to unity, which is to ruin my doctrine, is not brought into the light, I must without more detail dismiss it as self-contradictory or meaningless. The further remarks as to "logical principles" seem merely to repeat the same dogma about "form," or to imply further that I have assumed, without any argument, that there are not many Realities. This latter implication would of course be incorrect.

Passing next to the doctrine that Reality is one experience, my critic tries once more to show that for me Reality = "is". And the process is very simple (p. 113). He finds that Reality and Being are at times not distinguished by me, and he concludes that *therefore* Reality (proper) cannot possibly mean more than Being (proper). But the principle which underlies this wonderful

argument he does not state.[1] The notion that an idea can be taken as internally filled in, and that conceivably his author might hold this view, seems not to have occurred to him.

I have contended also that the Universe is a perfect individual, perfection including a balance of pleasure, though as to the pleasure I pointed out that doubt is not quite excluded. My argument, right or wrong, was simple and an extension of what went before. If all phenomena, without abridgment, are to be consistent and one, then (I urged) they must be a complete individual and this whole must be perfect; because, want of harmony between idea and existence, and again pain, must mean discord and so contradiction. Now with this argument, good or bad, I cannot find that my critic deals anywhere at all. He flies off instead (p. 114) to a discussion on the ontological proof. The position I have given to this in my work, and the way in which I have treated it parenthetically, should have warned any one that I could not intend to rest my case on an argument in this form. All that I feel called on to say is that what I have written on this proof my critic does not appear to have understood, and that my plain argument, so far as I see, he has totally ignored. After some remarks on pleasure, the bearing of which I have been unable to perceive, he asserts that the identity of idea and existence does *not* mean "the attainment and consummation of all ideals and ends". Well, so far as the whole is concerned, I have tried to reason that it does and must. And, until a better way is shown me, I have no choice but to put reasoning, even my own, before the mere assertion of however great a metaphysical authority.

The conclusion so far, that Reality is a perfect individual experience, is naturally abstract. It certainly, if true, has cleared away a large mass of competing theories, though my critic appears never to have looked at the matter from this side. But the conclusion is abstract and so far not satisfactory. On the other hand, it is a principle applicable (I have argued) to every part of the Universe. The idea of individuality, I have contended, can be, and is, used as the criterion of reality, worth, and truth. Since everything which at all exists must fall within Reality, everything in some sense is an element in a perfect individual. And individuality, we can observe, shows itself variously through the facts of appearance, and is found in varying degrees. From the space and atoms of matter to the highest life of the self-conscious self we can perceive a scale of individuality and self-containedness. Realised perfectly in no one part of the Universe the Absolute still is realised in every part, and it seems manifest in a scale of degrees the higher of which comprehends the lower. And the system of metaphysics (I have added), which I have not tried to write, would aim at arranging the facts of the world on this principle, the same principle which outside philosophy is unconsciously used to judge of higher and lower. If this

[1] The assertion that for me the "real" or the "experienced" is = "that" seems to me baseless.

doctrine is not true, most assuredly it is not new, and some knowledge of it, I suppose, may fairly be demanded from any one who comes forward to speak on metaphysics. Nor, again, do I perceive, when this principle is worked through the various aspects of the world, how within metaphysics we can look for anything more concrete.

But my critic urges that such a principle remains "purely formal," "the matter remains absolutely indeterminate and the form is a purely logical framework" (p. 114), or this "absolute knowledge is form simply". And he implies that such knowledge is not knowledge of the universe. If I had said that Reality was a perfect Will containing somehow within itself a plurality of finite wills, and if this principle were argued to be applicable to the various aspects of the world—would that also, I wonder, have been formal merely? But I am not told what it is that my critic expects from metaphysics. So far as I see, he argues downward from two assumptions.

He seems to believe that, without applying it to the concrete facts of the world, I ought to deduce straight from some abstract principle my ultimate conclusion. But he does not exhibit any warrant for this bare preconception. And when (p. 113), after a sort of appeal to Hegel, my critic assures me that to "place the spirituality of the real beyond question" "is what we want as a first step towards idealism," he seems, in criticising me, to bear witness against and to judge himself. For he appears to start from a sheer *a priori* construction of "idealism".

And the assertion as to pure form is surely once again the merest dogma. Mr. Ward seems to offer a dilemma. Absolute truth (apparently) is to be a "determinate positive knowledge" which has to "co-exist along with" finite truth (p. 115), or else it is "form simply" and "a purely logical framework". But this division of form and matter is precisely that which he has to prove against me, and to urge it as if in philosophy it were an undisputed axiom seems a strange procedure. Does the physical analogy from a material frame and what fills it hold good? Are the general character and the detail two factors more or less indifferent to each other, and of which either can be anything apart from the other? Is it conceivable that knowledge could be made up of two co-existing morsels? Is God (if we like to put it so) *either* an indifferent "framework" in which individuals are somehow stuck, *or else* one "morsel" in an undigested mass which somehow co-exists in (or without?) some stomach? And would it not be better if my critic addressed himself to the discussion of such points, instead of simply assuming against me as true what he surely might know that I reject? To me the idea that detail is *not* determined by its general character is irrational, that finite truth or being should "co-exist along with" what is absolute is unmeaning. To me of course there is *no* truth which is not the knowledge which the Absolute has of itself. The distinction which I have drawn in my last chapter

amounts to what follows. *All* truths are in various degrees imperfect. Finite truths have other truths falling outside which modify them; and, however much knowledge is organised, it never can be the perfect systematic totality of its detail. But the general character of the whole has, on the other side, no truth falling outside it. It is not one member in a disjunction, because any disjunction must be the specification of itself.

Now this whole doctrine may of course be mistaken in principle. I have failed, I know well, to grasp it and carry it out as it should have been carried out. Nay, if I had been able to keep closer to a great master like Hegel, I doubt if after all perhaps I might not have kept nearer to the truth. But when I am assailed to-day with the same dogmatic alternatives on the criticism of which long ago Hegel based his system, and when these seem blindly urged as axioms removed from all possibility of doubt, my own doubts are at an end. For, even if Hegel's construction has failed, Hegel's criticism is on our hands. And whatever proceeds by ignoring this, is likely, I will suggest, to be mere waste of time.

From this point onward I can deal more briefly with my critic's objections. I showed that in our psychical experience the various aspects point to a superior whole above relations, and that this whole in an imperfect form appears before, and still persists below, the relational consciousness. I was certainly wrong in employing (I hope not more than once or twice) the word "intuition". It was a misjudged attempt to assist the reader, and I left no doubt that the whole was not merely perceptional or theoretical.

My critic meets me (p. 116) with bare assertions. Feeling could only be mere being without diversity, it could suggest only continuous change—both of which assertions I of course deny. It could not always be called "a finite centre of experience"—to which I of course assent if he means *for itself*. Then Mr. Ward seems surprised and shocked that a principle in development should appear first in a less differentiated form. Then he states that for me differences are absorbed by an empty Reality, as, on the next page, he asserts that for me all finite content is destroyed in the Absolute—ignoring the fact that I, rightly or wrongly, have at least insisted on the opposite. Then I am assured without a reference (p. 117) that I make mind a mere logical *summum genus*. And, because I say of the theoretic and other aspects that they are factors among which none has supremacy, and, speaking of the Absolute, add "how these various modes can come together into a single unity must remain unintelligible," I am asked "How can we talk of life if there is no supremacy and no subordination, or if its unity is to result from 'factors' *coming together* for the purpose?"[1] But this question (so far as I understand it) does not seem to concern me. And when Mr. Ward proceeds (apparently) to take my words "and

[1] The italics are Mr. Ward's.

how . . . unintelligible" in the sense of *that . . . inconceivable*, I confess that once more I am at a loss for a suitable reply.

We come now to the connexion of finite centres of experience with the Absolute. The introductory paragraph (p. 118) seems obscure, and I cannot pretend to have understood it, and it is therefore most unwillingly that I am forced to notice it. So far as it means that there is a serious difference between finite centres on one hand and mere aspects of one centre on the other hand, I naturally assent to it. But the paragraph appears to imply very much more than this. I of course should not admit that unity and identity are mere relations, or that unity is possible without identity. But I do not know if either of these statements is implied. The questions asked as to the identity of and difference between the universe and reality and experience I have failed to understand. Perhaps they put once more the points which I have dealt with already; and in any case from my point of view they seem to be meaningless. But all that I am certain of is their great obscurity.

Then follows a supposition as to what I hold concerning finite centres. It is not a correct supposition, nor does it even seem to be offered as correct, and I am hence not forced to examine it closely. It involves what the reader of my work can see I regard as contradictions. There is, however, a statement (p. 119) which I cannot pass over. "To all finite centres, it will be remembered, there pertains a felt reality; and *that is not appearance*."[1] Mr. Ward has misconstrued the passage to which he refers, and surely I have committed myself fully to the doctrine that without exception every element in the finite is appearance. Anything like an acceptance of the reality of Monads would, I believe, reduce my work in principle to a mass of inconsistency. "Ideality," I think, and "appearance," I am sure, are used against me in senses different to that which I have given them. And when I "admitted" (p. 485) "that some appearances really do not appear," what I admitted was that I (like many others) use the word appearance in a sense which (if you please) is arbitrary, and that to appear does not necessarily imply appearance to some percipient. The passage is a reply to a criticism made, I think, by Lotze, and I am not convinced that it is really very hard to understand.

Passing on I find my critic still astonished. If appearances apart from Reality are nothing, and if in the end the "how" of appearances is inexplicable, he urges that they cannot be the "revelation" of Reality. But I am not aware that revelation must mean total manifestation perfect in every point where the whole is revealed. And if Mr. Ward will make inquiry he will find, I think, that he is merely trying to strain language. But he seems to approach the whole matter with fixed preconceptions. I have mentioned (pp. 517, 469) various facts which in the end I cannot explain. Amongst these the fact of finite centres

[1] The italics are Mr. Ward's.

takes a place, though not the only place. And this, I suppose, is contrary to what my critic feels he has a right to expect. I have argued that a mere inability to explain in the end "how" a thing can be forms no valid objection to our assertion "that" it is, if we have good reason on our side and on the other side nothing. Of this vital and reiterated argument Mr. Ward takes absolutely no notice. He doubtless finds it easier to refute me by distorting my meaning, and by taking "how" at his pleasure in the sense of "that". That a revelation can be imperfect and yet genuine is to him a thing strange and unheard of. And he seems possessed by the idea that I am bound to explain and deduce everything. But I cannot consider myself in any way responsible for his disappointment.

On the next page (120) my critic pursues the same path. After some statements and some implications as to the process in Reality, part of which are incorrect, he urges that process within the Absolute is but appearance, not true as such, and he asserts that *hence* it is "pure illusion". I have of course argued that appearance, though error, is partial truth, and is therefore *not* pure illusion. This contention doubtless may be mistaken, but a criticism which ignores it is surely not criticism at all.

The following page repeats with variations the same idle procedure. I have tried to show that time and change in their own character are appearance, but that (how in detail we do not know) they are corrected and preserved in a higher whole to which they minister. Once more, totally ignoring that on which I have insisted, my critic represents me as holding that time and change are reduced to zero. And, not content with this, he even allows himself strange liberties with my statements. The extract from p. 220 taken from one context is without a word applied to another. And when (with a reference to p. 210) I am said to make an attempt which I myself style illusory, I reply by asking the reader to see for himself what attempt I really spoke of, and to save me the task of qualifying Mr. Ward's method of attack.

The mere illusoriness of phenomena (which in fact I do not hold) I might, it seems, have avoided, if I had not strained myself to escape from the pre-eminence of will (p. 122). The history of philosophy since Kant does not wholly tend to support that hypothesis. And I am offered a dilemma between something like the pre-eminence of will and a belief that all changes "are but events and not acts". This ready-made alternative (we have known for years) exhausts for Mr. Ward all possibilities. He is forced to see, and he even admits, that I do not assent to it, and yet he has no resource but without any discussion to charge me with incoherence. But is it criticism to judge an author from preconceptions which he is admitted not to accept? And then my critic seriously represents me as holding a doctrine quoted as to goodness and immortality, when on the same page (432) I plainly disconnect myself from it, and in part criticise it again on p. 508. That this extract from my work, the only one quoted

for approval, should be put forward in spite of myself as my doctrine, is characteristic. It is even more significant that, *if* this doctrine *were* mine, I should be blindly re-asserting in the face of Hegel's elaborate criticism. But what pleases me is that in my volume (508) this criticism actually is referred to.

On p. 123 the remark following the extract from my p. 34 may be commended in passing to the reader's attention. And, coming to that essential inconsistency of thought which I have tried to prove, my critic prefers to stand outside the discussion and once more merely to assert. And when (p. 124) he crushes me with "in what sense can a system be perfect, harmonious and complete, when every constituent is not only partial but defective?"— he seems never even to have heard of the doctrine that, *unless* partial constituents *were* defective, they never could be elements in a system at all (see my p. 422). But, even if that view could elsewhere be taken as unknown, or as what might fairly be ignored, it is here the very view which Mr. Ward is undertaking to criticise.

At the end of his attack (p. 124) my critic remembers that something has been forgotten, the chapter on degrees of truth and reality. He has never understood that an appearance is rejected as simply false, only so far as it offers itself as simply real. He seems ridden by the notion that between appearances and the real there is a sort of wall. The idea that nothing is, or exists at all, except so far as it is the one Reality, that this Reality appears and shows its character everywhere in a more or less imperfect form, and yet that nothing taken by itself can claim to be the Reality—any such idea plainly has never entered Mr. Ward's field of vision. And hence he is staggered to find that appearance after all has degrees. He asks in amazement how finite spirits are to use absolute Reality, as if finite spirits could possibly use or could be anything else, as if outside the finite the Absolute were anything at all, and as if a principle must be employed explicitly or applied in a perfect form, or else, failing that, not applied and not used in any way. He once more roundly asserts that, when the whole is qualified non-relationally, this means that the relations are not added to but extinguished. He does not anywhere even mention the fact that I at least insist on the opposite. And he ends with a sketch of my mental characteristics, which I am led to infer must be such as to account for and justify anything. When a man does not understand me at once it is because I am unintelligible, when his statement as to what I hold contradicts itself that is because I am incoherent, and when, suppressing one part of what I teach, he presents a fragment as the whole, he but does me the service my unhappy nature prevents me from rendering to myself. And this is all possible, but after all there is another possibility. If that idea could have been able to suggest itself to my critic's mind, we might perhaps have been spared a controversy which (so far as I can judge) is wholly futile.

F. H. Bradley.

HEGELIANISM AND ITS CRITICS."

In his article in the January number of MIND, Prof. A. Seth quotes a sentence of mine in refutation of Prof. Jones's remark that "No 'Hegelian,' 'Neo-Hegelian' or 'Neo-Kantian' could hold that his ideas are the things which they represent". The sentence occurred in an article in the *Philosophical Review* (vol. i. p. 270): "A thing really is—that way of thinking about it which fits it into its place in an intelligible system of the universe". I am sorry that this sentence has given rise to misunderstanding, because, however little right I may have to speak as an "accredited representative of Hegelian thought and tendencies," I should not wish that any expression used by me should be an additional stumbling-block in the way of those who hesitate to accept an Idealist theory of knowledge and reality. This unfortunate sentence of mine had already been misunderstood by the critical analyst of my article in MIND (vol. i. p. 439, N.S.), who is quoted by Prof. Seth. I used the sentence originally, not as expressing my own conclusion, but as a statement of what the real world was *according to scientific belief*—trusting, too rashly, that the context would make my meaning clear. In reprinting the article in a volume of essays, entitled *Darwin and Hegel*, &c. (1893), I repeated the words "to the scientific mind" from the preceding sentence, inserting them after "A thing really is". I mean, of course, "to the scientific mind" that takes its own ideas seriously and becomes conscious of them. In support of my statement I may refer to Mr. Huxley's well-known lecture on Descartes, republished in his collected essays, vol. i. (*Method and Results*). "'Matter' and 'Force,'" he there says, "are, as far as we can know, mere names for certain forms of consciousness" (p. 193). "Legitimate materialism . . . is neither more nor less than a sort of shorthand idealism" (p. 194). Other statements of an equally strong kind might be quoted from Prof. K. Pearson and other scientific writers who think about the phrases they use. In the context in which I used the sentence I was referring to the difference between the plain man's "real world"—the world he touches, sees, smells, &c.—and the world of atoms, vibrations in a hypothetical æther, &c., which constitute the "real world" of scientific thought, but are admitted to be only "conceptions".

But the "Idealism" of Mr. Huxley is only a convenient starting-point for philosophy and not itself a sufficient theory of knowledge and reality. Among other defects, it does not adequately account for the objectivity of scientific truth,—*i.e.*, the validity of conceptions for more than one consciousness. I certainly do not hold that "*my* ideas are the things they represent"; but only that reality has no intelligible meaning as something existing "outside" all thought. And with this opinion Prof. Seth, I think, agrees. "The possibility of knowledge," he says,

in the *Philosophical Review* (iii. p. 61), "becomes the surest guarantee of metaphysical monism—of a unity which underlies all differences." The phrase "identity of thought and being" is undoubtedly apt to give occasion to the scoffer, (1) because "thought" is apt to be restricted to discursive, reflective thinking (*cf.* Mr. Bradley's *Appearance and Reality*, pp. 170-172), instead of being taken to mean νόησις, as distinct from mere διάνοια; (2) because "identity" is apt to be taken abstractly, as if it excluded difference. This last error of "popular philosophy" has been admirably exposed by Mr. Bosanquet (MIND, vol. xiii. p. 356). The only defensible "monism" is a conception of an identity which includes within itself the dualism of thought and things. And the sense in which Prof. Seth accepts the notion of "pre-established harmony," as excluding metaphysical heterogeneity (*Philosophical Review*, iii. p. 62), seems to me to mean the same thing as we others (if I may say "we") have been calling "identity".

As to the other sentence of mine that Prof. Seth quotes—"What is any individual thing except a meeting-point of universal attributes?"—I can only repeat my question, in the hope of getting some "Realist" to answer it. I ought to add, however, that I am fully aware that every real individual is the meeting-point of an *infinity* of universals, as is recognised in the logical doctrine that a singular term cannot be defined, and in those often-quoted but profoundly true and philosophical lines of Tennyson about the "flower in the crannied wall".

D. G. RITCHIE.

VI.—CRITICAL NOTICES.

Einleitung in die Moralwissenschaft. Eine Kritik der ethischen Grundbegriffe. Von Georg Simmel. Zweiter (Schluss-) Band. Berlin: Verlag von Wilhelm Hertz (Bessersche Buchhandlung), 1893. Pp. viii., 426.

The first volume of this important work has already been noticed in Mind;[1] and the general characterisation of it there given may be applied, without much qualification, to the second. The only important modification that seems necessary is a partial retractation of the statement with regard to the lack of arrangement in Mr. Simmel's work. A reading of his second volume enables one to appreciate his arrangement better, or at least makes it apparent that a systematic arrangement was hardly to be expected. It was perhaps natural to suppose (indeed the word *Einleitung* is rather calculated to suggest) that it was part of the aim of the book to lead up to a positive and constructive theory of ethics; whereas it is now evident that Mr. Simmel's position is intended to be purely critical. Perhaps a pure critic is entitled to take up the various points in his subject in any order that he finds most convenient for his purpose. In fact, the title of the work is somewhat misleading. It is not so much an *Einleitung* as *Prolegomena;* or rather, to adopt the title of another famous English work on Ethics, it might be most fittingly described as *Ethical Studies.* Not, indeed, that any book can be purely critical. A critic necessarily writes from some particular point of view; and I still think that the general account which has already been given of Mr. Simmel's point of view is substantially accurate. Though, in the volume now before us, he lays considerable stress (pp. 83-4) on the importance of the concept, and illustrates its value with a characteristic wealth of concrete material, yet his point of view remains essentially and emphatically nominalistic. A whole is simply an aggregate of parts (p. 370, &c.); and the objective is a mere sum of subjectives (p. 9). A philosophical student, to whom the position of the sensationalist and the individualist appears to be an *überwundener Standpunkt*, naturally finds himself somewhat startled at the outset by such a frank avowal. He rubs his eyes, and asks himself if he has somehow slipped back into the eighteenth century. For such a student does not know, as Mr. Simmel seems to suppose that every one does, what the mere particular, the mere "that" as such,[2] could possibly be. And when such a

[1] Vol. i. No 4, pp. 544-551. See also No. 3, p. 434.

[2] Mr. Simmel's brief statement on the "Das" and the "Was" may be contrasted with the thorough investigation of these conceptions in Mr. Bradley's *Principles of Logic* and *Appearance and Reality.*

student finds the recurring phrase "Compact Majority" (p. 163), or its equivalents, employed as a key for nearly every lock, he naturally wonders whether Mr. Simmel has never heard that "one, with God, is a majority"; and whether it is not the case that the power of a "majority" depends entirely upon the nature of its "compactness". The truth seems to be that such a phrase as "compact majority" is a simple evasion of the problem involved in the conception of the unity of a manifold. What is meant by "compact"? Does it mean anything more than a certain coherence of parts, a coherence which must necessarily be dependent on some principle of unity, of which no account is ever attempted in these pages? Surely, as an explanation of the unity of experience, such a phrase as "compact majority" is just about as enlightening as "association of ideas". We are still left to inquire what is the principle of unity which makes any "compactness," any "association," possible at all. It is surely astonishing that a writer of Mr. Simmel's undeniable acuteness should rest satisfied with such a threadbare conception as this. He must be familiar with the development of philosophy since Hume;[1] yet it appears sometimes as if that whole movement of thought had remained a blank to him.

Passing, however, from this general and fundamental point, on which the present volume does not really appear to throw any new light, we must now consider briefly some of the more special discussions that are here raised, some of which, it may be said at once, are of the highest interest and importance. The volume now before us is divided into three chapters, one on the Categorical Imperative, one on Freedom, and one on the Unity and Conflict of Ends. Each of these is deserving of the most careful attention; but on each of them a few words of comment must here suffice.

The chapter on Kant, together with the preceding one on Utilitarianism, may be compared with Mr. Bradley's two essays on "Duty for Duty's Sake" and "Pleasure for Pleasure's Sake," with which, broadly speaking, they correspond. Mr. Bradley's criticisms are much the more vigorous and incisive; but Mr. Simmel's are perhaps more careful and elaborate. I have already indicated that his criticisms of Utilitarianism do not seem to me altogether satisfactory. For instance, the remark (vol. i. p. 327) that a man might find so intense a pleasure in torturing others as altogether to overbalance their pain, is surely a superficial objection to Utilitarianism. An action, according to Utilitarian principles, is not to be judged simply on its own individual merits. We must also take account of the consequences which would ensue if such acts were generally allowed. Similarly, the argument (p. 397) that a nature of richer passions and affections is valued more highly than one of lower capacities, even when

[1] Or shall we say since Hobbes? Mr. Simmel seems to agree with the philosopher of Malmesbury, that all thinking is simply reckoning.

there is no evidence of a greater overbalance of pleasure in the former, seems to ignore the social point of view. It is surely arguable, if the Hedonistic calculus is to be allowed at all, that those more richly endowed natures are on the whole productive of a greater overbalance of pleasure to humanity at large, and that our estimation of their value is (perhaps to some extent unconsciously) determined by this fact. Generally, we may say that in criticising Utilitarianism Mr. Simmel does not appear sufficiently to take account of its most rational form. There is a similar weakness, I think, in his criticism of Kant.[1] In particular, he seems to misconceive the significance of the Kantian principle that we ought always to act on maxims that can be universalised. "Many things," says Mr. Simmel (vol. ii. p. 24), "are not permissible for us to do, just because all other people do not do them; they would be quite permissible if all others did the same. The criterion: What would happen if every one acted in the same way? is here inapplicable; since precisely if every one acted in the same way there would be no evil consequences." Similarly, he points out that there are cases in which we ought to act in particular ways, in which it would be absurd, perhaps even impossible, for every one to act (p. 25). He even takes the extreme case of the hangman's work (p. 40). "It would be equally fair," he says, "to regard the hangman's act as in the highest degree immoral: for what would be the result if it became the universal practice to cut off people's heads!" But surely all this is very superficial. It is not *actions* but *maxims* (*i.e.*, principles of action) that Kant insists on universalising. There would be no absurdity whatever in every one cutting off people's heads *when he had the same grounds for doing it as the hangman has*. It is true, indeed, that there is a certain want of clearness in the Kantian principle; for if we take account of all the qualifications that might enter into the maxim of an action in any particular case, it would be almost impossible to show of any action that it could not be universally carried out. This point is brought out with great force by Mr. Simmel; and all that he says about it seems to me to be admirable. But his argument is vitiated throughout by his failure to distinguish between the universalising of actions and the universalising of maxims. Again, when Mr. Simmel objects (pp. 24-5) to the Kantian principle, on the ground that it involves the placing of our actions in a new moral environment, he appears to miss the significance of the Kantian Typic, which here takes the place occupied by the Schematism in the *Critique of Pure Reason*. Mr. Simmel's objection seems to be that it is absurd to judge our actions as they would be in a world in which every one acted similarly. Our actions must be judged by their relations to the

[1] A corresponding weakness appears also in Mr. Bradley's criticisms referred to above; but Mr. Bradley does not intend his criticisms to be directly applicable to Kant.

actual world in which we live. But Kant's whole point is that our actions cannot be judged in this way; because this involves the consideration of an empirical content, which is entirely foreign to reason. We can only judge our principles of action, by endeavouring to see whether they are in accordance with reason. And we can only discover this by testing whether they could be consistently carried out, *i.e.*, whether, if universally carried out, they would give rise to a self-consistent world. This involves the imaginary transformation of the "ought" into a "must". The Law of Freedom has to be conceived as if it were a Law of Nature, *i.e.*, as if every one necessarily acted in accordance with it. If this is impossible, it cannot be a genuine "ought". Now this view may be erroneous; but if Kant is to be effectively criticised, he must be criticised from within.[1]

The chapter on Freedom is perhaps the most powerful section of Mr. Simmel's whole work. It seems to give evidence of great speculative depth and subtlety; and the subtlety is seldom misapplied, as in some of the other chapters I cannot but think it is. Mr. Simmel explains in this chapter (p. 163) what was already implied, though not definitely expressed, in his first volume, that Will is to be understood as meaning conformity to the "compact majority" of our desires. Setting aside the unsatisfactoriness of the phrase, this view of Will seems to me to be substantially correct. We have now to ask what is the significance of the conception of Freedom when applied to Will thus understood. First, we may draw the obvious enough distinction between "outer" and "inner" Freedom. "If it is outer freedom that I can do what I will, it is in like manner

[1] There is also, I think, a misrepresentation of Kant's position in Mr. Simmel's first volume. On p. 317 he argues that it is incorrect to represent the Good Will as the only absolute good. The Good Will is good only in so far as it is *Good* Will; in its concrete working out it may have bad consequences, and so be on the whole bad. So also, Mr. Simmel urges, pleasure as pleasure is good, though on the whole, in its concrete realisation, it may become bad. Will and pleasure are thus quite on a par. This argument seems to imply a misunderstanding of what Kant means by the Good Will, which is very far from being a mere Good Intention. The Good Will means the direction of a man's whole energies to the carrying out of the moral law. This will may fail,—in fact, in the actual empirical world, it *must* fail,—but in itself it is absolutely good. It requires only, for its completion, a suitable environment, which would bring happiness. Pleasure, on the other hand, though a good, is not an absolute good. The pleasure, for instance, which results from torturing others, though no doubt, simply as pleasure, it is a good, is yet a kind of good which is incompatible with the realisation of any conceivable *summum bonum*. The only pleasure that could be regarded as an absolute good is the pleasure that results from the complete working out of the Good Will. But the existence of the Good Will is presupposed in the very possibility of such pleasure. Such pleasure, therefore, cannot stand by itself as an independent good over against the Good Will.

inner freedom that I can will what I will" (p. 135). But clearly if the latter phrase is to have any meaning, we must be able to distinguish between different selves. The "I" which wills must be different in the two cases. This point, however, presents no difficulty to Mr. Simmel, who, as we have already seen, does not recognise any real unity in the self. The self is simply the dominant universe at a given time; and this means merely the compact majority of present desires. Such a self may evidently vary from time to time; and much of the significance of what is commonly understood by Freedom is explained by this fact. Thus when men insist on the possibility of acting otherwise than they have done, this means in reality (p. 220) the possibility of the development of a different self. In fact, when we look back at any past action, it is evident that the self which looks back is already different from the self that acted; and if the present self could be transferred into the past, there would not merely be the possibility but the necessity of acting otherwise. In order, however, that we may understand the full significance of Freedom, it is necessary to draw a further distinction, *viz.*, that between *negative* and *positive* freedom (p. 245). Negative freedom means simply freedom *from* (p. 169, and vol. i. p. 288). Freedom in this sense is, in the last resort, impossible (p. 244). To loosen a bond of attachment on one side is to fasten it on another. It is to freedom in the more positive sense that the main interest attaches. This freedom is rather aggressive than defensive. It means primarily self-mastery (p. 253), *i.e.*, the subjection of our inner life to the dominance of a relatively permanent majority of desires. But we cannot rest content with mere self-mastery. We demand also a certain mastery of others (*ibid.*). We demand, in short, the complete control of our world or universe by our dominant self. This leads to a consideration of property in external things; and Mr. Simmel (who is never afraid of a digression) gives an interesting disquisition on the general subject of possession, including slavery. He had already touched on this subject in his first volume (p. 172, &c.); and what he now says is an expansion of the ideas there set forth. Possession means the power of expressing the will (p. 250). It is the positive side of freedom; and we should be completely free in this sense only if we could have the whole world under our dominion, and indeed ultimately only if the whole world were absorbed in the self. For, as he said in the first volume (p. 172): "I really can possess nothing but what I am". It follows that freedom in the positive sense, no less than in the negative sense, is a chimera. Perfect freedom, like perfect happiness, is an impossibility[1] (pp.

[1] It might be thought from this that the last word is left by Mr. Simmel with pure determinism. The free self is unrealisable; and it might be supposed that the view intended to be taken is that our life consists simply in a succession of mutually determined states. But any one who should draw this conclusion in Mr. Simmel's name would

280-1). It is possible, however—and this is what is of chief importance for Ethics—to state the moral imperative in the form of Freedom. So stated, it becomes: "Act in such a way that the freedom exercised by you, together with that which your action permits or provides for others, is at a maximum" (p. 264). This form of the moral imperative has the great advantage of being subjective as well as objective. It furnishes us with the two sides of moral value (p. 265). It involves both a realisation of will and a realisation of objective content. In this respect it compares favourably with the form of moral imperative set forth at the end of the first volume [1] (p. 371), in which reference is made only to the subjective will; and also with the Kantian imperative (as understood by Mr. Simmel), which has regard only to the self-consistency of external acts.[2] The fact, however, that the idea of freedom is incapable of any ultimate realisation prevents us from regarding the moral imperative in this form as possessing any positive significance. It is merely an interesting method of *symbolising* (pp. 281-5) the principle involved in the moral life. But this is equally true of *all* forms in which the moral imperative can be stated. This whole chapter is, as I have said, perhaps the most interesting and profound in Mr. Simmel's whole work. Much of it might almost have stepped bodily out of Hegel; but it differs from Hegel in the fact that Mr. Simmel seems to refrain from driving his dialectic home, so as to extract a positive result out of it. If he had accepted the Hegelian conception of freedom as involving a limit which is at once posited and transcended, and had at the same time recognised that the moral life is a development, in which the idea of Freedom, though never fully realised, is the guiding principle throughout, which gives the whole process its significance, would not all the difficulties discussed in this chapter have been, if not solved, at any rate raised to a higher level?

misunderstand the sceptical attitude of his mind. At the close of the chapter on freedom the tables are turned on determinism; and it is argued in a passage full of subtlety and significance (pp. 304-6), that if determinism is true it can at least never be proved. For, in order to prove it, it is necessary to assume *logical* freedom, which is quite as important as *moral* freedom. All proof rests on the assumption that our thought can be guided by the logical ideal of self-consistency; just as the moral life involves the possibility of being guided by an ethical ideal. If determinism is true, the one supposition is as illusory as the other; and proof is as impossible as morality. All conclusions are then subjective, just as all actions are fatal. Determinism involves scepticism. If man is the sport of fate, he is also "the measure of all things". A certain conception of Freedom is as essential for Epistemology as for Ethics. In both we must presuppose a certain power of transcending the mere series of our subjective states.

[1] *Cf.* MIND, vol. i. p. 549.

[2] The two sides of moral value are discussed by Mr. Simmel at this point in a highly interesting way. *Cf.* also pp. 6-18, where the measurement of ethical values is discussed, and compared with that of economic values.

But Mr. Simmel seems to be determined to stand always upon thesis and antithesis, and never to advance to the synthesis. He is so suspicious of speculation that he prefers to rest in self-contradiction. He plunges to the bottom of the sea for fear of being drowned in learning to swim.

In the concluding chapter, on the Unity and Conflict of Ends, Mr. Simmel's ethical scepticism is still further worked out. He here finally rejects all attempts to reduce the facts of the moral life to a single principle. The *monistische Ethiker* (*cf.* vol. i. p. 14) are never really consistent (p. 330). Their principle is always only a formal way of dealing with a content which is presupposed,[1] and which has no relation to the principle of unity adopted. In reality, the "ought" is a "that," not a "what" (*cf.* vol. i. p. 11). It is simply "ein gefühlter Spannungszustand von Inhalten," and is not capable of any final rational exposition. The attempt to reduce it to a single principle, though it may sometimes have a certain regulative value, is only possible through a neglect of the finer moral distinctions (*cf.* pp. 53, 177, 319, 391). The attempt to introduce such a principle is due chiefly to a confusion with regard to the nature of ethical science. It has been supposed to be the business of the moral philosopher to supply us with practical guidance in life. But this is the business of the preacher or practical reformer (p. 409). The moral philosopher is merely concerned with the inquiry into the facts of the moral life; and if these are not reducible to a single principle, the moral philosopher must accept them as they stand. Ethics cannot solve moral conflicts (p. 408). The idea that it ought to do so has been most prejudicial to the study of Ethics. Descriptive Ethics (*beschreibende Ethik*) has been confounded with Prescriptive Morals (*vorschreibende Sittenlehre*) (p. 132; *cf.* also pp. 380, 409, 410, &c.). It has been supposed that an ideal is to be set up in Ethics; and that our interest in the actual moral life should lie in the study of its conformity to this ideal. Hence moral philosophers have tended to deal only with the positive side of the moral life (p. 319). The study of immorality, which is quite as interesting as that of morality, has been unduly neglected. In fact, so far as unity is concerned, the immoral life is even more interesting than the moral. Vices are on the whole more closely connected with one another than virtues. One vice leads naturally on to another (p. 320). Conscience, if there were nothing else, would give a certain unity to the immoral (p. 328); for conscience is simply a reaction against

[1] In this connexion Mr. Simmel refers also to the Hegelian metaphysic (p. 334), in which he thinks that the principle of unity can be made to work only by presupposing the concrete content of experience. Just as Hegel cannot show why *just that content* should be there to be interpreted, so the monistic moralist cannot show why just those particular obligations should arise out of his fundamental principle. But is it not, on the whole, a misunderstanding both of Hegel and of the *Monistische Ethiker* to suppose that they want to show this?

the immoral as such (p. 327). Hence the study of vice is, in many ways, more interesting than the study of virtue. Mr. Simmel's views on this and allied points have already been presented to a considerable extent in an English form,[1] and have been admirably criticised by Prof. Royce.[2] These criticisms I need not here repeat. I may say, however, that the whole conception of the superior unity of vice strikes me as being on the whole amazingly superficial. It is as if one were to say that ignorance has more unity than knowledge. Certainly if a man is ignorant of mathematics, it is much more inevitable that he should also be ignorant of physics, than it would be that he should have a knowledge of physics if he knew mathematics. But this unity of ignorance, like the unity of vice, is merely the unity of chaos. Even a study of Mr. Herbert Spencer might surely have saved Mr. Simmel from such a conception as this. The unity of vice and ignorance is the unity of an incoherent homogeneity, an undifferentiated dead-level. Virtue and knowledge are, by contrast, heterogeneous; but they are also coherent or systematic. The unity of the one is the unity of "the night, in which all the cows are black": the unity of the other is the unity of an artistic combination of light and shade. It is no doubt true that it is a fatal error to attempt to introduce a hasty unity into the moral life, just as it would be an error in metaphysics to attempt to see the unity of things without understanding their differences. Nevertheless, the ideal of knowledge, however far we may be from the realisation of it, is surely a systematic whole; and in like manner, the ideal in Ethics is surely a rational and self-coherent life. In the realisation of the one, as in the realisation of the other, we may often come upon a particular content which baffles us for the time. He is a bad metaphysician who forces such a content into the form of a preconceived unity; but he is a still worse one who sits down in despair, and abandons the idea of unity altogether. So also he is a bad moral philosopher who lays down rigid imperatives derived from the conception of an abstract unity of ends, forgetting altogether the rich content of the concrete moral life; but he is a still worse one who seeks to be content with a *beschreibende Ethik*, which leaves the conflicts and contradictions of the moral consciousness without any suggestion of a reconciling unity. In morals, as in metaphysics, we must always be guided and inspired by the idea of unity, however clearly we may recognise that it cannot be immediately applied to the concrete material before us. If we abandon the idea of unity in metaphysics, we leave the door open to every doubt and to every superstition; and if we abandon the idea of unity in ethics, we leave the door open to every in-

[1] "Moral Deficiencies as Determining Intellectual Functions." *The International Journal of Ethics*, vol. iii. No. 4.

[2] "The Knowledge of Good and Evil." *Ibid.*, vol. iv. No. 1.

differentism and to every fanaticism. If an ethical dogmatism blinds us to the finer moral distinctions, surely an ethical scepticism would blind us still more fatally to the broad distinction between good and evil. What seems to be required is rather a critical study which, while analysing our moral ideal and bringing it into clear self-consciousness, should yet not make any effort to apply it directly to practical details. In fact, the alternative of *beschreibende Ethik* and *vorschreibende Sittenlehre* does not appear to be exhaustive. Here, as elsewhere, Mr. Simmel has contented himself too readily with thesis and antithesis. The opposition here is the old one between a positive science and an art. But there is also the possibility of a *vorschreibende Ethik*, which should lie midway between a positive science and an art, which should be, in short, a normative or practical science, defining for us the ideal by which we are to be inspired, but leaving the particular applications of it to the prophet and practical reformer and to the sensible good neighbour and citizen. Only so can we avoid the miserable dilemma with regard to moral philosophy, between one which is not moral and one which is not philosophy.[1]

In taking leave of this concluding volume of Mr. Simmel's work, I cannot refrain, after these perhaps somewhat unsympathetic criticisms, from expressing my sense of the great importance of the work which he has done. His book, like that of Dr. Sidgwick, is an excellent cold bath for the ethical enthusiast.[2] The resemblance, indeed, between the two works is not complete. Mr. Simmel is not characterised by the caution and self-criticism of Dr. Sidgwick. The word "offenbar" occurs on his pages with astonishing frequency, taking the place which is occupied by "perhaps" and "seems" on the pages of Dr. Sidgwick. On the other hand, in spite of his disclaimers, Mr. Simmel appears to have a fondness for speculative philosophy, which is rather foreign to the attitude of Dr. Sidgwick. One cannot but feel throughout his work that much of what is best in his discussions, even when he seems most antagonistic to philosophy, receives a great part of its value from his knowledge of speculative problems and his keen interest in the dialectic of thought. However far he may be removed in his sympathies from the position of the great German idealists, one cannot but be impressed at times with the presence in his book of the subtle

[1] This whole subject has been most admirably discussed by Prof. Dewey. *International Journal of Ethics*, vol. i. No. 2, and *Philosophical Review*, vol. i. No. 6 ("Green's Theory of Moral Motive").

[2] Ethical enthusiasm for wide ideals is explained by Mr. Simmel (vol. i. pp. 20-21) as being largely due to want of a clear understanding of them. It is true that a little later (pp. 25-6) he seems rather to contradict what he says in this passage. But in general Mr. Simmel cannot be accused of a too rigidly dogmatic self-consistency. If error has more coherence than truth, as vice than virtue, Mr. Simmel's work may very well be true.

dialectic, the comprehensive grasp, the insight into life, of an *anima naturaliter Hegeliana.*

At any rate, however this may be, and however we may estimate his general position and conclusions, there can be no doubt whatever that in the second volume, as in the first, Mr. Simmel has discussed many important questions with a singular freshness and originality. I have seldom read a philosophic work which has impressed me so much with its wealth of material. The material is, indeed, rather rich than ripe. With all his ingenuity and suggestiveness, Mr. Simmel seldom, I think, hits the exact point. He appears on the whole to be lacking in precision and maturity of judgment. But certainly he is wonderfully acute and interesting. I could wish to refer at length to many of the points which he has raised; but I must content myself here with a brief reference to a few of them. On pp. 18-19 there are some interesting remarks on the causes of modern pessimism: "Offenbar," he says, "ist nicht zugleich mit den absoluten Endzwecken auch das Bedürfniss nach ihnen weggefallen". On p. 46, and some of the following pages, the insufficiency of the Golden Rule is well brought out. We should not always be justified in acting towards others in the same way as we might be willing to be dealt with by them. What Mr. Simmel says on this point might be compared with Aristotle's saying[1] that a good man loves himself more than his friend. "Such a man will surrender wealth to enrich his friend: for while his friend gets the money, he gets the beauty of the thing; so he takes the greater good for himself." It is doubtful, however, whether either here, or in the instances given by Mr. Simmel, true goodness would really lead to acting towards others in a way different from that in which we should wish that they should act towards us. Would not a good man wish his friend to get "the beauty of the thing" also?[2] On p. 49 Mr. Simmel makes the fine remark that "objectivity is distinction". On p. 51 he sums up his view of the Categorical Imperative in a way that may be profitably compared with that of Dr. Sidgwick. On p. 84 he illustrates the importance of the concept by the recent formation of such concepts as that of the Wage-earner, the Undertaker, and the like. On p. 224 he points out that no real repayment can be made either for good or for evil. On p. 238 he discusses the saying, "Tout comprendre c'est tout pardonner," and decides that it involves a confusion of thought. On p. 241 he explains why the knowledge of evil is dangerous. What he says here should be compared with the doctrines of Fouillée and Guyau with regard to suggestion. On p. 263 he explains that rights which are also duties cannot be surrendered, and that it is for this reason that a man is

[1] *Nicomachean Ethics*, book ix. chap. viii.

[2] *Cf.* what is said by Prof. Dewey (*Philosophical Review*, vol. ii. No. 6, p. 661): "I do not see that it is a bit better to act to *get* goodness *for* the self than it is to get pleasure for the self".

not at liberty to sell himself into slavery. On p. 298 there are some interesting remarks on the connexion between the sense of freedom and subconscious processes. The connexion between such processes and "flashes of genius" is also brought out in a striking though perhaps not altogether original way. On p. 314 he compares Pantheism with the formal view of the Good Will. On p. 318 he discusses the unity in Art. On p. 326 he has a highly characteristic passage on the place of *noblesse oblige* in morals. "*Quod licet bovi*," he says, turning the saying outside in, "*non licet Jovi*". On p. 332 he remarks that unity in Ethics presupposes unity in Metaphysics. On p. 344 he connects the unity of Nature with the unity of Self in a highly suggestive manner. On p. 355 he hazards the suggestion that in reality it may not be ends that have value for us at all, but rather the will that gives value; *i.e.*, we do not will an end because it has value, but it has value because we will it. On p. 389 and some of the following pages he has some interesting discussions on the relation between art, intellect, and morals. He notes here (p. 391) that "poetic justice" involves a one-sided view of life. On p. 413 he raises some important casuistical questions. On p. 421 he explains that moral development does not solve conflicts, but rather gives rise to deeper ones. On p. 422 he remarks that in practice it is generally best to regard every obligation as if it were absolute: "He who has never gone through a conflict of duties has certainly never thoroughly realised the claims that things have upon him".[1]

It would be easy to multiply references and quotations. Perhaps the sceptical character of the work, and its after all somewhat chaotic arrangement, may prevent it from being so widely read as it deserves; but there can be no doubt that it is one of the richest feasts of speculative thought on ethical questions that have been spread in recent times. One can only hope that Mr. Simmel may now turn his powerful dialectic to more constructive work.

J. S. MACKENZIE.

Psyche. Seelencult und Unsterblichkeitsglaube der Griechen. Von ERWIN ROHDE. Zweite Hälfte. Freiburg i. B. und Leipzig, 1894: Akademische Verlagsbuchhandlung von J. C. B. Mohr. Pp. 711.

There is a curious note of disorder sustained in the presentation of the remainder of this work. The Japanese, in surrendering themselves to European topsyturvydom, will probably give up beginning their books at the end and their sentences with a full

[1] What Mr. Simmel says on this, and also on the subject of tragedy, should be compared with Hegel's view of the tragic as arising from the conflict of two opposing Rights. Here, as in several other places, he seems to move among Hegelian ideas without being aware of it.

stop, as travellers say they do. But Herr Rohde, who launched the first portion, or rather, transverse section, of his book into publicity four years ago, without even a title-page, much less a preface, now issues the rest with the belated preface and table of contents, introducing the "Zweite Hälfte" of the last chapter of the first half, beginning at the "Zweite Hälfte" of a sentence. We are not told why there is this overlapping of eight pages. However, the publisher has freed himself from black letter, and employed type and paper that leave nothing to find fault with. And the subject, marvellously neglected, speaking relatively, in countries which have for many years surrendered the independence of their historic judgment in passionate devotion to their birthright of "classical tradition," has a freshness and fascination which does not dispose to merely fugitive leaf-turning. Moreover the reader is predisposed to follow gladly the treatment of a writer, who is professedly alive to the dangers of interpreting the religious ideas of one race and time by those of other and later "illuminations," and who modestly disclaims having done more than "give a contribution to a history of Greek religion". It were therefore perhaps unreasonable to expect more than the mass of sifted materials, resting half unwrought on the many strata of footnotes which confront us. That the mass is presented in a ponderous and most intricate diction is perhaps cruel and baffling, but then it is 'made in Germany'. We know that style. The more's the pity that the most thorough work in research which the age puts out should find no better vehicle. Is it quite hopeless to make our masters realise how much more fruitful they might make their works by simplicity and lucidity of phrase? Translation is starvation, and many readers not of Germany read German with more or less effort. Why not then forward international communion in the world of thought by utmost transparency of diction? Again, the author writes not only exclusively for his own countrymen, but only for such of them as are steeped to the heel in classic training, and, it may be, in nothing else. I mean, the book makes no claims upon any ulterior knowledge or interest which they may possess. On the one hand, dates—I speak in such a connexion only of centuries and decades—are, I believe, never given, with the exception of one or two at the end, when, in Göthe's impressive phrase, the 'Völkerdämmerung' of Greece is the subject. On the other hand there is a studious abstention from any attempt at comparative 'Volkerpsychologie'. I have only noticed one passing allusion to Indian asceticism, one to a debt possibly owed by Plato to 'orientalischen Phantasiebildern,' and one or two to the universality of religious dancing-mania and its significance. It is reasonable no doubt to expect some classical culture in the readers of such a work as this, and there is sober virtue in very special analysis. But it may be maintained that the subject of the book is calculated to interest a large number of students, whose inquiries are in other fields than the lovely but circum-

scribed meadow of classic asphodels, and whose proficiency in the approximate dates and sequence of religious movements in the basin of the Ægean and of the Mediterranean, if measured by the help derived from such 'classical' text-books as they ever mastered, would be very limited.

That which Herr Rohde does claim to have attempted is "a distinct exposition of the facts of Greek soul-cult and of Greek belief in the immortality of the soul, partly inaccessible though its innermost impulses are to our reproductive imagination" The difficulties confronting any attempt to treat of the religion, or any group of religious notions, of the ancient Greeks as an ethnological whole, or unit, are patent. No organic unity of doctrine, no notional evolution ('begriffliche Entwicklung'), no canon of sacred writings, no national creed implanted and established. Hence it can scarcely surprise us to meet with no attempt to mould "the facts," collected from literature and inscriptions, into any presentation of a continuous evolution of soul-theory either in the popular mind or the philosophic systems. This the author leaves to others. If others, endowed with a synthetic faculty and a religious insight at once sympathetic and critical, succeed in divining those "innermost impulses" and in revealing the story of their growth and religious utterance, their theories will owe much of such validity as they will put into them to such investigations as have here been made by Herr Rohde.

Such shape as is given to his results consists in a number of essays on different aspects and stages of the subject. In the first part there were essays on soul-belief and soul-cult in Homer's poems, on the popular traditions concerning the translation of the living to remote and happy regions, on hero-lore, on the cult of the chthonic deities, and of the dead, on redemption of murder, on the Eleusinian mysteries and on ideas of the after-life. To these there are now added other essays on the origins of the belief in immortality, with special reference to the Thracian Dionysiac rites imported into Greece, on mantic, cathartic, and exorcising arts, on the Orphic rites, on theories of the soul in the philosophers and in 'laymen' (under whom he groups lyric and tragic poets), and on the latter days of Hellenism. On the portion which has now been for some time in the reader's hands I do not here offer any comment, unless it be to remind him of the candour with which the author confesses his inability to connect the Eleusinian rites with the promise of bliss after death, with which they were traditionally associated, or to find the mysteries productive of moral teaching and influence. Greek cathartic ceremonies conveyed, he maintains, no assurance of regeneration of heart, or redemption from sin. They were simply to purge away and ward off the 'miasma' of demonic environment. He fails to become wise over the symbolism of the corn seed, and denies the presence in the mysteries of any element of Dionysiac ecstasy, which might justify the

interpreting the notion of immortal life as a corollary of that inception (Ineinsetzung) of human into divine life which he holds to have been the peculiar aspiration of Bacchic, and indeed of all orgiastic worship. And he concludes that the worshipper came equipped already from other sources with a belief in the immortality of the soul, glad to see certain representations of existence in shadow-land which he did not get in the other celebrations he attended, and to enjoy with some æsthetic and other emotions, together with *beaucoup de bonne volonté*, the play-acting, the exclusiveness, the sense of Panhellenism, the harmless secrecy, and the late hours of this fascinating old feast. This reads like the kind of explanation 'a literary man' of Athens in the fifth century B.C. would have given of a festival from which he could well understand his neighbours deriving mild enjoyment, but "the innermost impulses" of which he neither understood nor could track to their primary utterance. It is instructive to contrast with it one of those interpretations which Herr Rohde would probably term worthless, as imposed by later or earlier ideas, *e.g.*, that given in the thoughtful Hibbert Lectures of the late Dr. Hatch, who finds in the Eleusinian rites so direct an antecedent in the evolution of Christian sacramental mysteries, that he 'cannot find it in his heart to call them a *pagan* ceremonial'. It is at all events the interpretation of the sympathetic insight of a religious mind. It may err, but then it was delivered two years before the appearance of Herr Rohde's book.

Moreover it does not fail to acknowledge more fully than does the latter, the importance for the mysteries of the old Nature-cult surviving in them, supremely pagan and *un*moral as this undoubtedly is. Again in inquiring into the psychic significance of the Dionysiac ἔκστασις it is scarcely *qua* nature-worship that Herr Rohde considers it. Much less is he content to bring its rites, its priestesses and mænads, together with its implications of soul and immortality, into any connexion with nature-worship considered as matriarchal. But he very justly refuses to see anything inexplicable in the propagation, or rather, in the revival, in Greece, the home of σωφροσύνη, of a cult of intoxication, frenzy and 'enthusiasm'. Of the two he holds that *we* can more easily sympathise with a religion of overwhelming emotion and rapture than with the measured composure and bright serenity of Greek ideals. But the one phase finds its complement and compensation in the other. He might have found even weirder contrasts and antinomies in the typical Anglo-Saxon Christian. The most impressive illustration of the fusion of the two phases of Greek religious life is seen, as our author points out, in the alternating superposition of Apollo-worship on that of Dionysus, and again of the latter upon the former at Delphi, until the two were so far blended that the 'ecclesiastical year' was divided between them, and the deities were invested with each other's attributes.

The toleration by the Greek of rival deities and their respec-

tive forms of worship was exercised also in their normal attitude towards religion and philosophy. As there was no lust of empire and conquest in the Greek of Greece proper, leading him to formulate and impose his religious ideas on other people's, so also was there no priestly caste to form an *imperium in imperio* and dominate the movement of intellect. Rarely did the state-religion remind the philosopher of divergence between his opinions and itself. What is at times more apparent, and, according to Herr Rohde, paradoxical, is the lax acceptance by some philosophers of popular psychology, irreconcilable with their own theories. This is sometimes explicable by the same term being used with a transformed content. By 'Psyche' in poetical and popular usage was meant, not as in philosophy the noumenal entity, or the abstract name for a bundle of subjective phenomena, or the actualising force in the living organism, or an emanation of cosmic force or spirit, but a kind of sleeping partner or second ego, both material and spiritual, dwelling in the individual, but leading a life of its own, manifestations of which it gave in dreams, trance and ecstasy as man's 'Doppelgänger,' when the other 'I' lay in quasi-lifelessness. The mysteries too were claimed by Heracleitus, in spite of the impermanency of the soul in his doctrine, as fundamentally in harmony with the same, if rightly interpreted. But Parmenides spoke both as a materialist and as "an Orphic-Pythagorean theosophist". The Pythagorean doctrine includes a view of soul as immortal substance and a view of soul as the resultant harmony of bodily functions. Empedocles also was both substantialist and materialist. And Plato upheld the antinomy of the immortal νοῦς of the theologians co-existing with his Ideas, which alone were eternal realities. Was it a moral effort at conciliation, fear of social and legal sanctions, or poetical laxity that weakened their logic?

We picture the Greeks as a peculiarly life-loving race, so that at first sight it seems but natural to find their heart's desire crediting them with a belief in immortality. Yet as often as not the after-life for them meant no indefinitely more radiant prospect, such as the Christian sums up in 'Heaven,' but a dim and sunless land. In the prime of Greek development, it is true, the Elysian fields and the isles of the blest awaited some souls. But in the 'dusk' of Hellenism, on the other hand, it was not uncommon to find the sceptical 'If' in epitaphs:—εἴ γέ τι ἔστι κάτω,— and the like. And where the doctrine of re-incarnation or transmigration is found it is not held as the joyous hope we might have expected, but rather with a Buddhist dread of being bound upon the 'wheel of birth' or 'of necessity'. According to Orphic tradition the soul, drawn by the breath into the prison house of one body after another, has to pass through a weary round of fate on her way to deliverance. In Pindar we find the notion of a second and third rebirth on earth (*Ol.*, ii. 68 ff.), considered as stages in a career of spiritual purification. The incarnations of Empedocles constituted toilsome ways,—ἀργαλέας

βιότοιο κελεύθους. And Plato's 'fall into birth,' if not a moral lapse of the soul, as it is for the *δαίμων* of Empedocles, is yet an intellectual obscuration brought about by the craving of *ἐπιθυμία* (just as in the Buddhist doctrine rebirth is due to the craving—*upādāna*, of desire—*chandarāgo*), and is only to be atoned for by at least three rebirths with an interval of 1000 years between.

CAROLINE A. FOLEY.

Les Caractères. Par FR. PAULHAN. Paris: F. Alcan, 1894. Pp. 237.

The author of this volume has already in *L'Activité Mentale et les Eléments de l'Esprit* (reviewed in MIND, vol. xiv. p. 579) given a view of abstract psychology claiming some originality. The elements of mind are there described as clustering into systems and smaller systems into larger; personality being an all-inclusive system. Like other evolutionists M. Paulhan applies to the inner life a law of development drawn from evolution in general, the passage from plurality to unity, from incoherence to system, but adds a clause peculiarly his own, from chance to finality. The modes of grouping which constitute mental development are Systematic Association, or grouping of elements which contribute to a common end, Systematic Inhibition, or the suppression of elements obstructive to an end or indifferent to it, a derivative law of Contrast, and the special results of Systematisation commonly known as Association by Resemblance or Contiguity.

The appeal to Finality in defining separate systems of elements is not made openly until the volume has progressed considerably in laying out types of character. The author's main line of treatment is in the first place a deduction of certain types from his special psychological prolegomena. He proceeds through the several grades of completeness in the play of systematisation. There are perfectly poised characters where harmony prevails, and harmony not through the dominance of one ruling passion, but through the measured participation of many impulses in the governance of life. This type, he says, implies the development of certain special tendencies *which adapt the individual to his social surroundings.* But the "adaptation" he immediately explains to be one which protects the internal harmony from the shock of outer impressions, a curious curve in definition reminding us of the definition of life in general as given by Spencer. The types which follow are arranged in order of decreasing perfection in the internal system. The unified are fully harmonised, but only through the subordination of all to one or a few, stronger tendencies. With the self-restrained, a type deduced from the predominance of Systematic

Inhibition, psychic decentralisation begins, and it proceeds through the domain of Contrast, Contiguity and Resemblance, to negative types where the class is only varied by the kind of influence which breaks up system. In this series of sketches, *a priori* as it is, the reader will recognise many of the tempers familiar in everyday social experience and in literature.

A second series of types is based on certain abstract qualities of mental tendencies, Amplitude of personality and richness of tendencies in their elements, Purity, Force, Persistence, Suppleness and Sensibility. These are not set forth, however, as simple, like the "dimensions of pleasure and pain," with some of our moralists; or the "general aspects" of sensation and feeling, with our psychologists. The tendencies are themselves formed, according to Paulhan, through systematic association. And amplitude depends on the number of elements united in them, purity, in their perfect finality; force and persistence arise from systemic stability; suppleness is the aptitude for becoming more systemic still; sensibility is rapidity in the process of system forming. Thus these types range themselves along with the first series as resolvable in terms of systematic association if not directly deducible from the conception.

It is in the third list of types, formed by predominance or defect in one tendency rather than another, that the appeal to finality becomes overt. The method is no longer deductive, but is empirical and analytic. The several ends of effort which common observation and conversation recognise and name are arranged in an order determined by sociological rather than psychological considerations, are assigned a separate Tendency and consequent type, and are then analytically explained by aid of familiar psychological ideas and laws. We have first the Vital Tendencies, grouped elements which seek the preservation and play of organic or mental energy. Then there are the Social Tendencies, whose ends lie within special areas or consist in special features of our social surroundings. And the series closes with the Supra-social Tendencies, such as Mysticism and Love of Truth. In this part of his discussion M. Paulhan has the merit of consistently holding by objective facts in order to differentiate his impulses. He leaves severely alone the distinction so often confusedly made or misapplied between the egoistic and altruistic in impulses. His question is not whether the tendencies are interested or disinterested, though this is more or less disclosed in the analysis of them after they have been otherwise defined, but whether they exist through attractive features of individual life or through those of social surroundings.

We are inclined to recommend M. Paulhan's book specially to a class of readers who often inquire vainly, and perhaps ignorantly, for psychological instruction, the writers of introspective fiction. Moralists, too, will find the classifications suggestive of moral values, and M. Paulhan promises in a future work to unfold the ethical implications of his method. We may note that

the empirical way of distinguishing between tendencies accords with the description of "particular passions" given by so familiar a moralist as Butler, while the conception of systematisation is like that of "governing principles" which according to Butler introduce moral order into human nature.

As a scientific theory of character, the book is an advance, though not finally satisfying. M. Paulhan, while sketching three distinct series of types, each on a distinct principle of division, is well aware of the abstractness of his doctrine. He insists that individual character must be appreciated by reference to each series and not to one alone, and often by reference to several members of each. He even devotes several chapters to the conditions under which the types may best reveal their presence and the logical precautions to be taken in reading them there. All this we must assent to. Also it is a merit to have employed different scientific methods in deducing the several series. But both in his deductions and in his empirical classifications his theory of character takes its shape from sciences and observations outside itself, and must depend for its stability upon the permanent value of doctrines of which the full statement and proof are to be sought elsewhere.

J. Brough.

The Riddle of the Universe. Being an attempt to determine the First Principles of Metaphysic considered as an Inquiry into the Conditions and Import of Consciousness. By Edward Douglas Fawcett. London: Edward Arnold. 1893.

Philosophy as the disinterested search for truth has no attraction for Mr. Fawcett. Speaking for himself, he confesses that his interest in "first causes, gods, and divine breaths generally," is lukewarm compared with that in his destiny as conscious individual (p. 382). He holds that "it matters nothing to us whether Theism is true or not supposing we perish helplessly with our organisms" (p. 161). But for a future life, Pessimism would be true, and if so he would prefer sensual to intellectual pursuits. Unless in the long run the higher potentialities of his nature "*pay* they are not worth following at all" (p. 382). Indeed, he seems to find the study of philosophy, even when it is only Mr. Spencer's, a difficult and painful process (p. 394). True, he recognises "the rush of joyous ideation" characteristic of a born thinker (p. 418): but this, according to his theory, is a proof of "palingenetic inheritance". Men like Bacon, Berkeley, and Kant, are very old souls who have become masters of their craft in previous states of existence. Mr. Fawcett is evidently not an old soul himself, or at least paid little attention to abstract reasoning in his previous incarnations. His style, though not without a certain rude picturesqueness and occasional epigrammatic concision, is far from being that of a clear-headed writer. We hear of "a warping theological bias," in British philosophy, "against which Mill angrily bent his bow". Presently the bias becomes an "incubus verging on ubiquity". Even when doubt is professedly "mooted, it is usually a mere shield to be pushed forward in front of an insidious orthodoxy"; and though "instances of unbiassed thinkers" occur, "the main stream of

thought is vitiated" (pp. 178-9). Mill is himself coloured by a lingering bias (p. 278); and "that haven of Agnosticism, the Noumenal unknown X, is placarded on both sides with intractable sets of phenomena" (p. 254). Surely, if any, the soul of Lord Castlereagh has come back to earth!

Conscious, perhaps, of his ante-natal deficiencies, Mr. Fawcett has striven hard to make up for them by ransacking the works of philosophers, with the help of translations if they wrote in German, with the help of popular handbooks if they were too tedious to study at first-hand. Half the volume is filled with an account of the search, which has proved unsatisfactory. From the Schoolmen to E. von Hartmann, no one can satisfy Mr. Fawcett as to whether he personally is or is not to live happily ever afterwards, whether it is or is not better for him to live like Socrates or like a pig. His criticisms are generally forcible, though not original, and he is more accurate than the generality of amateur historians. But mistakes do occur. Melanchthon, so far from detesting Aristotle and his works, as is here stated (p. 16), took them as the basis of his philosophical teaching. "The cautious Baconian method" did *not* "give birth to the Hobbists" (p. 18); on the contrary, Hobbes took his cue from the Continental physicists. When and where did Bacon snub Galileo? (p. 19). Cudworth should not be placed between Leibnitz and Kant (p. 376). In Spinozism there is nothing about an "unknown substance" (p. 190), the essence of the substance being known through its attributes as infinite power. Once break down the traditional barrier erected between the lines of philosophical development in England and on the Continent, once view Spinoza in his right relation of dependency on Hobbes, and this becomes perfectly clear. It is rather provoking to find Mill, after his repeated declarations on the subject, credited with a belief in Noumena of objects, and classed among the cosmothetic idealists (p. 307).

Mr. Fawcett himself professes to have got rid of Agnosticism. He maintains that "the universe is both ultimately knowable and thoroughly interpretable" (p. 209). Combining this with a subsequent statement that "the subject can only know its own states" (p. 280) one seems to be logically landed in solipsism. But the author considers himself absolved from discussing such a theory by assuming that "the wildest sceptic" does not hold it (p. 308). The argument from authority is here invalid, as it assumes that there are persons besides oneself, which was the point to be proved. Nor is this the only vicious circle involved. Mr. Fawcett uses the alleged certainty of the fact that changes in my consciousness are effected by changes in an alien consciousness to establish the transcendent validity of causality (*ib.*), since, according to him, it is by employing that category that I infer the one from the other. Thus the truth of the premisses follows from the truth of the conclusion. But letting that pass, it seems to follow equally that the subject knows something more than its own states. Nor is its knowledge limited to the category of causality. In considering such sensations as the colours of a sunset, it asks—by what right is not stated—whence they came and whither they go. The answer is, from and into the subject (p. 280). Here we have, as often happens, the abusive employment of material metaphor doing duty for metaphysical reasoning. The subject is regarded as a box, out of which clothes are taken and into which they are put back. And, so considered, it is not conscious, although its essence is said to be revealed in states of consciousness (*ib.*)—as if anything could be revealed as the negation of itself! Thus after all his fair promises our guide merely leads us back to the despised Agnostic standpoint. A Spencerian also might enunciate the identical proposition that consciousness arises from the potentiality of itself, in

other words, it arises from what it arises from ; and to call this something spiritual adds nothing to our knowledge of what it is. Indeed its capacity as a recipient points rather to a materialistic or spatial than to a spiritualistic interpretation of its nature. Mr. Fawcett ought to be aware that the whole drift of modern science is to transfer the notion of potentiality from the order of existence to the order of knowledge. It means an actuality of whose existence we are assured by the law of causation, but whose constitution we do not yet fully understand, *e.g.*, energy of position, or else a perfectly known antecedent which will not produce a particular effect without the co-operation of other antecedents as to whose adjunction we are still uncertain. In this sense an acorn may be called a potential oak.

According to Mr. Fawcett, each subject is a potential universe, carries, wrapt up in itself, a mass of latent consciousness equivalent to the sum of existence, whether including or excluding all other subjects I shall not venture to say, as this point is never made clear. States of consciousness in any subject are, as a rule, raised from possibility to actuality by stimulation from without. This we must think of as proceeding from a corresponding state of consciousness in another subject, since, according to the author, nothing but subjects and their modifications can be conceived to exist. The nervous system is an assemblage of monads, each of which has for its function the entertainment of a single grade of feeling received from the outer world and propagated to the central monad—the human or animal soul—by a process perhaps identical with telepathy or thought-transference (p. 309 *et passim*). On this I have to remark that a subject consisting of a single feeling is something that the limits of our experience do not permit us to conceive. Mr. Fawcett can only escape the difficulty by saying, as he actually does, that "the self-contained subjective activity" of the minor monads is "doubtless unillumined by consciousness" (p. 313). Again, under the name of Spiritualism we are offered an explanation that explains nothing, that leaves the mind a perfect blank ; and again our philosopher slides back into the position of the Spencerian Agnostic who describes sensations as impressions received, he does not know how, from an object, he does not know what.

A fresh problem is presented by the wonderful unanimity of the monads. Those constituting what we call the physical universe and answering to the atoms of chemistry, without being aware of each other's existence, combine to make up a coherent intelligible whole, governed by fixed laws of coexistence and succession. To meet the difficulty Mr. Fawcett, like others before him, combines the idealism of Hegel with the monadology of Leibnitz. He imagines a universal subject from which the particular subjects spring, in which they are co-ordinated, and by whose wisdom their activities are directed towards a single end. This he calls the meta-conscious—a hybrid name bred by the metempirical of Lewes out of the unconscious of Hartmann. Here again the author gives himself away. Whether it was possible or conceivable that the monads should "emerge out of the unindividuated essence of the universal subject" (p. 320), and, if so, how any one can prove that such an event actually took place, are questions that we are fortunately absolved from discussing by his naïve admission that "the meta-conscious as *prius* is unreal" (p. 410). It is in fact a big potentiality, a sort of Hegelian *An sich*. A revived monadology might, at least, have delivered us from such figments. As an eternal unifying principle the meta-conscious does its work inefficiently enough, seeing that the monads are left to find their places by a general scramble, dignified with the name of a struggle for existence. How, the surprised reader may ask, can they

struggle for what they have got already? The answer is that they only exist in so far as conscious (p. 436)—a state, as we saw, attained by very few of the whole number. The rest are like Adam in the old play, who is seen crossing the stage "going to be created". Singularly enough, though non-existent they have always been capable of feeling pleasure and pain, and latterly of discovering means whereby they can secure the one and elude the other. Pleasures go along with their furthered activities, pains with their repressed activities, the repression at least being, as would seem, ascribed to the activity of other monads, though not a hint is given as to how this interference is to be conceived. Anyhow they slowly learn how to protect themselves by "befitting adjustments" (p. 321)—like so many complex organisms. Instead of a magnified non-natural man we have a multitude of diminished non-natural animals.

The ethical theory of this work is mostly borrowed from Mr. Spencer. But the author is not, like that philosopher, a thorough-going determinist. With complete consciousness comes freedom, and of two courses the more painful is sometimes chosen. Morality, we learn, is thereby "invested with a new lever" (p. 344). It is not clear at first sight why motiveless action should be more favourable to morality than to immorality. One can understand the categorical imperative, or sense of duty, acting as a motive with a force not measurable in terms of pleasure or pain. But Mr. Fawcett does not mean that. "The ideally moral man," according to his view, "is he who most completely furthers the happiness and mitigates the miseries of his fellows . . . and it matters not a pinch whether in so doing he obeys the call of 'duty' or not. Duty, as feeling of compulsion, indicates, indeed, defective ethical development" (p. 380). One motive is as good as another and a deal worse too, while the best thing is to act without any motive. On the next page we are told that "fixed ideas breeding habits, *habitual unselfishness* may result, which no mere hedonistic theory can explain". But Mr. Fawcett himself cannot explain what, in his own phrase, makes "the ideal of self-sacrifice worth culture," since it is neither a feeling of pleasure for oneself nor a feeling of duty to others. Again, we hear that morality in its highest forms is "purposive following out of the interests of alien subjects by imaginative self-identification with really walled-off entities, A being, and acting for, B and C, so far as he can think and feel for them vicariously" (p. 399). What is this but a "mere hedonistic theory"?

At any rate morality tends to abolish pain. But "pain is essential to the actualisation or perfection of the whole"; and "progress demands that man should be always more or less miserable" (pp. 401-2). This might raise a suspicion in a more logical mind, that the meta-conscious has some other end in view than the happiness of the individuals in which it is realised. But Mr. Fawcett is nothing if not illogical; he oscillates helplessly between the conflicting theories of Herbert Spencer, E. von Hartmann, Renan, and the popular theology, vainly striving to piece them together into a single system. There *must* be some great ultimate happiness to compensate us for all this misery. Though the monads came into being they can never cease to exist. "Continual passage of individual units into the darkness would thwart the world-purpose" (p. 411). No evidence of the assumed purpose is offered, but we have hints about an intuition transcending reason, which, perhaps, the author lays claim to. After all, the promised joys of immortality are, like the rest of the system, somewhat shadowy and elusive. As already mentioned, Mr. Fawcett is a believer in palingenesis. The only future life he has to offer us is the transmigration of the monad constituting our personality into another group of monads. He "attaches no importance to the naive question:

Why does not Smith remember who he was before? It would be an exceeding strange fact if he did, a new Smith being now in evidence along with a new brain and nerves" (p. 423). Precisely: but then what becomes of the compensation promised to the old Smith?

This volume then supplies no answer to the question: "Why not ape the pig happy, rather than Socrates miserable?" Mr. Fawcett, indeed, is in no danger of aping Socrates. But I think he would be better employed in cultivating his talents for sensational fiction than in following the other alternative.

ALFRED W. BENN.

VII.—NEW BOOKS.

The Science of Mechanics, A Critical and Historical Exposition of its Principles. By Dr. Ernst Mach. Translated from the second German edition by Thomas J. M'Cormack. London and Chicago : The Open Court Publishing Company, 1893. Pp. x., 534.

Evidence is not wanting that great interest is now felt in questions regarding the best mode of statement of elementary dynamical principles. A recent discussion in the *Physical Society*, much correspondence in *Nature*, Prof. Pearson's *Grammar of Science*, and the present translation of Prof. Mach's book show that English-speaking men of Science are taking an active part in the critical movement. The question how far the Law of Inertia, for example, is derived from experience must have puzzled most teachers, and existing English books can have given them but little help. The general question to what extent the Laws of Motion are statements of fact and to what extent they are definitions of technical terms is one which many must have felt needed clearing up. To trace the precise meaning of the principles of Mechanics, their rise in history, and their source in experience is the main object of Prof. Mach's book.

The only true method of exposition of Dynamical Principles is the historical method. The science is a highly abstract one ; and the process by which the present theory has been attained must be understood before the theory itself can be fully appreciated. Observation and experiment, empirical generalisation, reasoning in terms of physical concepts, mathematical analysis, metaphysical speculation, are all elements out of which the completed structure has been built up. Each of the Principles now admitted has had its origin in one or more of these elements : the Principle of Virtual Work is a generalisation from a common observation ; the Principle of Vis Viva arose in reasoning on the motion of the Pendulum ; the Principles of Momentum and of Least Action were suggested by ideas about the perfection of God. Our current text-books too frequently content themselves with a scanty reference to the original authorities tending to obscure rather than to elucidate the matter. It is the part of the critic to recognise the sandy character of the foundations as well as to describe the solid facts by which they may be replaced. To do this he must read the cruder works of all the great pioneers as well as the completer works of the subsequent master-builders ; he must sympathise with the point of view of each and yet compare it critically with his own ; he must so write that his readers may be able to do these things for themselves, may be able to see reflected in his pages the thoughts of the men of old, may be able to criticise them and compare them with the existing theories, may be able to subject these again to criticism. All this Prof. Mach does, and does thoroughly well.

The first chapter relates to the Principles of Statics. The author gives a most interesting critical account of the early labours of Archimedes in establishing the Law of the Lever and of Stevinus concerning the Inclined Plane, and of the advances made by their successors down to Lagrange, concluding with a retrospect of the development of Statics. He appends a description of the discovery of the principles of Hydrostatics and Pneumatics. His criticisms all tend one way ; they go to show that the principles are merely restatements in more exact terms of such elementary observations as that bodies generally tend to sink, not

to rise. His view is that it is the office of science to discern in complicated phenomena the same elements as in simpler and more familiar ones. This view is developed at length in a later chapter.

The second chapter gives an account of the achievements of Galileo, Huygens, and Newton in laying the foundations of dynamical theory. It is pointed out that an accidental error on the part of Galileo in investigating the law of falling bodies diverted his attention from seeking the relation between the velocity and the distance of descent, and caused him to inquire after the relation between the velocity and the time of descent, and it is suggested that the course of the development of Dynamics might have been entirely different but for this accident, the doctrine of Energy being arrived at without a preliminary doctrine of Force. We cannot agree with Prof. Mach in thinking such a development logically possible. Somewhere the Newtonian conception of *mass* is bound to be introduced. If we attempt, as suggested by Prof. Mach, to define mass by means of the inverse ratio of the squares of the velocities produced in two bodies by the same *work*, we must be able independently to say when two pieces of work are equal, which does not appear to be possible. The corresponding difficulty when mass is defined by means of the inverse ratio of the accelerations produced in two bodies by the same force is at once surmounted by taking account of the Law of Reaction.

The same chapter contains what must be regarded as the most important contribution made by the author to the subject, *viz.*, his criticism of the Newtonian definitions and axioms, especially in regard to the Law of Inertia and "absolute rotation". Maxwell had taught us that the essence of Newton's dynamical doctrine lies in the concept of *mass*, and he had emancipated himself from the notion of absolute motion of translation. Prof. Mach's procedure is more thorough. Absolute space, absolute time, absolute motion, whether of translation or rotation, all disappear before his analysis. He has convinced himself, and seeks to convince his readers, that they are not essential to Newton's system, although forming integral parts of Newton's statement. In some respects we could wish that Prof. Mach's reasoning were more satisfactory, the more so as we agree heartily with his conclusions. But, whatever slips there may be in the exposition, the chapter will well repay perusal by all who wish to have clear ideas on the subject, and it ought to tend to make the statement "all motion is relative" more of a realised truth, whereas it is now too commonly regarded as an inconvenient proposition best kept in the background.

It is unnecessary here to follow Prof. Mach in his account of the Extension of the Principles (ch. iii.), and their formal development (ch. iv.), but we may notice an interesting section (II. of ch. iv.) showing the bearing of theological speculation on the forms of theoretical statement, and another (IV. of ch. iv.) in which the author details his views of Science as Economy of Thought. These sections should be read by students of the Theory of Cognition.

In the last chapter Prof. Mach discusses the relation of Mechanics to Physics and to other branches of Science. He appears to be somewhat out of sympathy with the modern point of view, according to which a deep insight into natural processes can be obtained by following the transformations of mechanical energy into other measurable effects, and *vice versâ*, and he does not appreciate the substantial aid to such investigations provided by hypotheses which make the transformed energies always in some new sense mechanical, or analogous to one of the two mechanical forms. We agree with the author in pouring scorn on the question "whether it is possible to *explain* feelings by the motion of

atoms". Yet there can be no doubt that a great advance in Physiology will have been made when we can describe accurately the chemical, physical, and mechanical aspects of physiological processes.

The book is well printed, and contains many interesting illustrations, some of them representing new physical apparatus, designed to exhibit the truth of elementary principles, and some of them again being quaint old diagrams and portraits of the pioneers of the science copied from early works. The style is generally lucid, and the matter is always thoughtful and suggestive, and the book should realise in no small degree the aim of its author "to clear up ideas, expose the real significance of the matter, and get rid of metaphysical obscurities".

A. E. H. Love.

Theism as Grounded in Human Nature, historically and critically handled. Being "The Burnett Lectures" for 1892 and 1893. By William L. Davidson, M.A., LL.D. London: Longmans, Green & Co., 1893. Pp. 469.

Dr. Davidson delivered in Aberdeen during the autumns of 1892 and 1893 the series of "Burnett Lectures" which now have assumed a permanent form. His style is fluent and vigorous, and his audiences no doubt derived from these lectures both edification and instruction. They contain a good deal of psychological and ethical matter, besides occasional excursions into the history of philosophy and remarkable fertility of quotation. Unfortunately the supply of logical mortar seems to have been hardly sufficient for the mass of materials thus brought together for the grounding of Theism, since there is but little attempt at connected argument in the book. As a specimen of the author's reasoning we may quote the argument in favour of his general thesis that "God is a necessity of human nature," which he expresses as follows: "As man is what he is, the idea of God, as we see from history and from present fact, inevitably arises in him. But if it inevitably arises in him, it ministers to a human want, and is thereby a necessity" (p. 194). It is somewhat difficult to see why an identical proposition should be required to prepare the way for the appeal to history and present fact. Nor is it very clear what further progress we have made beyond the inevitable rise of the idea when by the mediation of the term "want" we assert it to be a necessity. Doubtless, however, we are to understand the necessity to refer, not to the idea as such, but to the corresponding objective reality. This assumption receives confirmation when we find a little further on that human wants imply the existence of their objects. But we look in vain for any criterion by which these wants may be distinguished from mere desires and wishes, which, we are told, carry no such implication, unless the bare statement that they are "organic to human nature" can be regarded as such. This general argument is subsequently subdivided in accordance with the analysis of consciousness into Feeling, Volition, and Intellection, and we have the separate treatment of Emotional, Ethical, and Intellectual Theism, each of which is considered competent to furnish a factor, and only a factor, to the result.

Berkeley's Three Dialogues between Hylas and Philonous, with an introduction and notes by Satish Chandra Banerji, M.A. Calcutta: Hare Press, 1893. Pp. lx., 134.

By his republication of the dialogues the editor hopes to supply the need of an edition suitable for use in colleges. We are glad to welcome

his little volume as an indication of the progress which the study of Western thought is making in the East.

Suicide and Insanity: A Physiological and Sociological Study. By S. A. K. Strahan, M.D., Barrister-at-Law. London: Swan Sonnenschein & Co., 1893. Pp. vii., 228.

"It is in the hope that people may be induced to use intelligently in the propagation of the human race, some of the knowledge, care and forethought so successfully exercised in the breeding of the lower animals, that this book is given to the public" (Preface). The author, after a somewhat sketchy survey of "suicide in early times," proceeds to draw a distinction between true and quasi-suicide. In quasi-suicide "the reason of the individual is called upon to decide between death and a continuance of life, and chooses the former. In true suicide the individual is impelled to destroy his life by an innate craving or impulse, by an uncontrollable impulse, or by the unhealthy reasoning of a disordered intellect. The prevalence of the latter type of suicide is characteristic of modern times as compared with ancient, and it is with it that Mr. Strahan mainly concerns himself. He devotes much space to showing the frequency of self-destruction in families in which there is hereditary neurosis." The self-slayer is nearly related to the imbecile, the epileptic, and the insane, all of whom are to be met with in profusion among his relatives. "But the suicidal instinct is as distinct from insanity as epilepsy is from idiocy or idiocy from mania" (p. 102). The treatment of the "suicidal impulse" is good and psychologically interesting. The most interesting cases are those of the gradual growth of a morbid desire for death. The influence of race, of climate and season, of religion, and of sex and age, in determining suicide are considered in separate chapters. The increase of suicide in recent times is referred to hereditary transmission. Throughout the work the author maintains that "the cause of all true suicide lies in that degenerate condition which is the constant product of civilisation". He confidently asserts that it is rare among primitive and uncivilised peoples. But no evidence is brought forward in support of this proposition, which certainly does not appear to be intrinsically probable.

Le Problème Moral dans la Philosophie de Spinoza et dans L'Histoire du Spinozisme. Par Victor Delhos, Professeur suppléant au lycée Michelet. Paris: Félix Alcan, 1893. Pp. xii., 569.

A sympathetic study and vindication of Spinoza as a moralist. His ethical doctrine is regarded as the essential part of his system, founded upon his own experience and expressed again in his life. His influence has been most widely and deeply felt in Germany, where it may be traced in the greatest critics, poets and philosophers, from Lessing to Hegel. About half the book is occupied with the history of Spinoza's ideas in their connexion with German thought. As to his influence in England there is very little to be said; and in France too he was generally neglected or misunderstood till Cousin ventured to praise him. Critical notice will follow.

La Philosophie en France (Première Moitié du xixe. Siècle). Par Ch. Adam. Paris: Félix Alcan, Editeur, 108 Boulevard Saint Germain, 1894. Pp. 442.

M. Ch. Adam proposes in this book to pass in review the work and influence of the exponents of French thought during the first half of the

nineteenth century, comprising the men who gave expression to French theological, metaphysical and positive opinions.

M. Adam prefaces his history with a luminous presentment of the practical outcome of French theoretical philosophy at the beginning of this century. "The age," he says (p. 9), "is thoroughly humanitarian. The good of society impassions it. Its aim was the amelioration of the lot of all mankind, but especially that of the most numerous and poorest classes."

The idea of social solidarity became dominant during this period, fostered alike by the liberal Churchmen, Bonald, De Maistre and Lamennais, as well as by the Secularists, St. Simon, Fourrier, and Comte.

The opening half of the century is marked by artless faith in the possible future of mankind—Progress, Solidarity, and Perfectibility—were the shibboleths replacing the Liberty, Fraternity, and Equality of the French Revolution. M. Adam divides philosophy, according to the familiar question-begging method of Auguste Comte, into theology, metaphysic, and positivism. To the consideration of each of these categories he devotes one of the three books of this treatise. We may pass over the first as dealing with the supporters of orthodox Catholicism and established authority, such as De Bonald, Joseph de Maistre, Lamennais, as well as the more liberal Lacordaire and Montalembert. Book ii. records and criticises the School of Psychologists which flourished in France under the auspices of Maine de Biran, Ampère, Royer-Collard, Victor Cousin, and Jouffroy. The *raison d'être* of these writers was a reaction against the so-called Sensationalism of the eighteenth century. They were, however, sufficiently imbued with the positive tendency of the age to recommend the application of the strictly scientific procedure of observation, experiment, and induction, to the explanation of psychical laws and phenomena. M. Adam regards this school with scant favour. "They were," he says, "so engrossed with the task of annihilating the *penser c'est sentir* doctrines which they detested that they devoted little attention to any constructive theory of mind." Doubtless the character of their psychology was tentative and transitory, and what little staple it had was but an echo of the Scottish teaching of Reid and Stewart.

Still our author is a little hard on the psychologists of this period when he compares them (257) "to a gardener's dog who protects the fruit in an orchard without touching it himself, or if he does so by chance, it is only to spoil it".

The metaphysic of this period in France does not seem to have been more vigorous than the psychology. Our author, who has the French tendency to epigram, summarily dismisses both metaphysic and psychology with the remark: "Our philosophers appear to us too metaphysical to be genuine psychologists and too psychological to be good metaphysicians" (p. 262).

Under a section entitled "Tentatives Historiques" (p. 262) M. Adam offers some suggestive remarks on the relation of philosophy to the history of philosophy, and on the utility of the study of the past in general as a guide to the interpretation of the present and the prediction of the future. He, probably influenced by the catastrophes of French history, is no believer in the continuity of social or intellectual life. Theories built up on the experience of ages may be shattered in a moment by the apparition of some new unexpected moral force. Hence our author concludes (p. 266), "the history of philosophy is of little service to the intellectual growth of any one. It is not even the best mental discipline in acquiring the art of thinking, for it is apt to encourage a habit of subtle dialectic which may easily degenerate into sophistry."

The third part of M. Adam's work is occupied with tracing the mode in which the disengaged elements of theology and metaphysic pervading French thought during the first quarter of this century were finally precipitated in the form of Positivism, Socialism and the Religion of Humanity. Pierre Leroux and Comte were the leaders of this movement, and it is evident the sympathies of our author are thoroughly enlisted in its favour. In France the positivist doctrines have moulded public opinion and actuated far-reaching political and social changes.

M. Adam's delineation of the new era is vivid and coherent—his diction is brilliant—his style terse—his arrangement perspicuous.

THOMAS WOODHOUSE LEVIN.

L'Education de la Volonté. Par JULES PAYOT, Professeur agrégé de Philosophie au lycée de Bar-le-Duc, Ancien élève de la Faculté des Lettres de Paris. Paris: F. Alcan, 1893. Pp. xii., 278.

This book is pre-eminently practical in its aim. It is intended mainly for the guidance of students who desire to attain the habit of intense and persevering intellectual activity systematically directed to a pre-determined end. Any student who does not possess this habit is according to M. Payot an idle person, however busy he may be in other ways. In considering the possible means of acquiring this intellectual habit, M. Payot begins by emphasising the paramount importance of "affective states" in determining the will. There is only one method by which an indolent mind can overcome its indolence. Emotions favourable to its activity must be encouraged and utilised, hostile emotions must be avoided and as far as possible suppressed. Now, our direct control over outbreaks of emotion is but small. But it is possible to regulate them indirectly by strategic devices. Two principal modes of procedure are described with much illustrative detail. The first is meditative reflexion. This consists in calling to mind, with all possible concreteness and vividness, ideas adapted to excite favourable emotions and in submitting to destructive criticism the ideas which tend to excite and support unfavourable emotions. The second mode is "action". Various admonitions are given under this head. M. Payot especially urges the student to "quench not the spirit". Whenever a wave of emotional excitement prompts to action, it is all-important to utilise the opportunity and set to work at once. Thus if the spirit of emulation is stirred in a student by the tidings of a comrade's success, he should straightway sit down at his desk and give himself up to reading or writing. By constantly making a point of this, he will in time acquire a fixed and permanent habit of intellectual work. M. Payot also strongly urges the advantage of cultivating a brisk and vigorous mental attitude in all the ordinary actions of life, getting out of bed, dressing and undressing and so forth. He recommends that the work of the next day should be definitely fixed on the preceding evening. He wages war with the notion that a feeling of indisposition and inaptitude is a valid reason for refraining from work. Such feelings are quickly dispersed by a vigorous effort and give place to the pleasure of activity, unless they arise from fatigue or ill-health. There is much more advice of a similar nature. The influence of bodily health on mental vigour is next discussed. M. Payot recommends gentle exercise and moderation in eating. He thinks that students usually eat far too much. He then proceeds to discuss the special dangers and difficulties arising from vague sentimentality, from sensuality, from the influence of companions and relatives, from the "sophisms of the indolent". Some reflexion on the influence

of teachers accompanied by criticism of certain false conceptions and vicious methods of education bring the work to a close. It is on the whole a commendable book. It is quite possible that the student who has recourse to it with a due amount of sincerity may actually derive from it some effective assistance.

Logik. Von Dr. Christoph Sigwart, O.Ö., Professor der Philosophie an der Universität Tübingen. Zweiter Band. Die Methodenlehre. Zweite, durchgesehene und erweiterte Auflage. Freiburg im Breslau : J. C. B. Mohr, 1893. Pp. viii., 776.

In this volume Dr. Sigwart has given us very substantial additions to the first edition, which are all the more valuable and interesting at the present moment for being mainly in the direction of psychological and historical method. The Sciences which treat of human development were before dealt with somewhat cursorily ; they are now made to occupy a more prominent and worthy position. By a fuller treatment of the elements of our psychological Concepts (pp. 195 *sq.*) we are prepared for the introduction of an entirely new section devoted to the consideration of the application of the Inductive Method in Psychology (pp. 518-573 inclusive). Concerning the many points at issue in psychological method Dr. Sigwart has very decided views. In the first place he maintains it to be not only justifiable, but inevitable, to assume a causal relation between events in consciousness and changes in the external world, between sensation and stimulus ; it is true that by our inability to measure sensations we are prevented from establishing any equation between cause and effect, and so from formulating *exact* causal laws, but none the less our conviction remains that the causal relation is present. The objection that the presence of this relation is in conflict with the Principle of the Conservation of Energy is carefully weighed, and judged to be unimportant, in view of the fact that the Principle is an empirical law which has only been proved as yet within certain limited regions, and that to extend it beyond those particular regions, so as to apply to the whole material universe, including organisms, is a mere assumption for which we have no sufficient ground. It tells us only that within a certain complex of material causes, which we assume to be self-contained and not affected from without, the sum of active and potential energy remains constant ; but the Principle is not violated by assuming that such a system may enter into causal relations with elements possessing forces of a different nature, it is not imperative that every material change should have only material effects or proceed only from material causes. Hence it is argued that there is nothing either in this Principle, or in the causal concept itself, to prohibit heterogeneous substances from entering into a causal relation in such a way that a certain sort of material change in the brain is responded to by a sensation on the part of the subject of consciousness.

Moreover, it is maintained, even though we should grant that the assumption of a causal relation gives rise to certain difficulties, the theory of mere Parallelism involves us in far greater. In the first place, inasmuch as the theory presupposes definite physical or chemical processes to correspond with every psychical event, there is the difficulty of conceiving of material combinations in the brain which are not only governed by chemical and physical laws, but which also conform to the laws of the mental sciences, *e.g.*, of logic, harmony, and æsthetic. In the second place, the theory is ruled out of court as fatal to the existence of the will in any significant sense ; it necessitates that the will should be

reduced to the mere expectation of occurring events, or to the feeling of innervation, to a complex of sensations. To think that we exert any force by virtue of our will would be illusion, and we ourselves the mere spectators of our own movements. It may be doubted whether the Psychologists will find this objection to Parallelism as insuperable as it appears to Dr. Sigwart, but it is one which will certainly recommend itself to the ordinary consciousness. The next difficulty, that Parallelism taken in connexion with the fact of human intercourse involves direct communication between spirits, without the intervention of material signs, is rather attractive than repellent, in spite of the warning that such a process of "universal suggestion" would be the ruin of Psychology.

As a question of method, however, we are to accept the facts as we find them; and amongst the facts of consciousness is the obvious connexion between certain of our sensations and the external world. To reduce these connexions to general laws is one part of the task of induction, aided by analysis and hypothesis. Here Dr. Sigwart distinguishes three branches of Psychology: Psychophysics; the Psychology which deals with the individual consciousness in its private development; and that which arises out of the intercourse between human minds. The dignity of Psychophysics as a true branch of the science is maintained, but the proper subordination of physiological investigations to the Psychology by which alone they can be interpreted is insisted upon. The so-called laws of association are then subjected to a searching criticism, and stress is laid upon the importance of dealing primarily with the more permanent and established connexions which form a background for the conscious life. We are told that the right clue to psychological analysis was given by Kant; what we have to do is to discover the different forms of synthesis connecting those elements which we find to be actually connected in consciousness. The question of the Psychology of human intercourse leads to an interesting discussion on the art of pedagogy, and to a still more interesting treatment of the dependence of the individual upon the mental atmosphere of his time.

The next important addition (pp. 599-637) occurs in the section dealing with inferences from given facts to the reality of their causes. In the first place, there is the most important task of interpreting the thoughts and feelings of other people from their external manifestations; but this art—though perhaps more calculated than any other to advance human happiness—proves hardly capable of being reduced to method. There is more scope for logical treatment in dealing with history, and the question of historical method is carefully and fully discussed. Here again, while stress is laid upon the importance of the interaction between the individual and the community in explaining historical events, we are reminded that in the consciousness of the individual alone is there any real psychical life, that there is no real connexion between the members of a community but through the medium of signs, and that there is neither knowledge nor belief that is not experienced by some individual. The true distinction is between those elements in individual consciousness which are common to all members of a community, and those which are peculiar to the individual; and thus the fundamental laws of history will resolve themselves into psychological laws governing events in particular minds.

In Political Economy the theory that economic phenomena are determined by the Principle of Individualism is condemned from the point of view of method as involving the assumption of fictitious subjects of unreal actions. It is better, and more in accordance with facts, to deal with ends (*e.g.*, the end of obtaining the greatest possible value with the

least possible expenditure of Capital and Labour), and to disregard the motives from which individuals adopt the end. This method is considered to be especially desirable from the point of view of the historical school.

Besides these two important sections which are incorporated into the main text there are large additions in the notes dealing with more or less controversial points. Notably, there is a further discussion of the concept of efficient action or causation (pp. 173-179), and of the nature of the process of Induction (pp. 432-439). The latter is mainly devoted to the consideration of theories propounded by Benno Erdmann and Dr. Venn.

H. Dendy.

John Locke und die Schule von Cambridge. Von Dr. Georg Freiherrn v. Hertling. Freiburg im Breslau: Herder'sche Verlagshandlung, 1892. Pp. xi., 318.

That the writings of a plain straightforward English gentleman, who set the highest store upon perfect clearness of thought and freedom from ambiguity in expression, should have formed the subject of so much misunderstanding and controversy as have gathered round the essay concerning Human Understanding cannot but strike one as a remarkable instance of the irony of history. For long we were content to view his work through the spectacles supplied to us by those who claimed to be the true heirs to his philosophy, and could see in him nothing but one of the founders and chief representatives of modern empiricism and sensationalism. And even when the inadequacy of such a representation has been fully recognised there has been little or no attempt to arrive at an understanding of the historical antecedents and setting of the essay. Locke has still remained a figure upon the horizon of our known world of modern philosophy, with for background nothing but the darkness which enshrouds all beginnings. For the circumstances which have tended to bring about this result Locke himself must be held partly responsible. He lived at the beginning of an age of intellectual communism, which recognised no right of property in ideas, and considered that exact references to the writings of others, whether in cases of agreement or of controversy, were quite uncalled for. And he shared to the full the conviction that truth was to be won only by the labour of the individual mind, of which this literary habit was the expression, and had a supreme contempt for those appeals to authority and for the mere erudition against which it was the reaction. Consequently from a bare perusal of the essay one derives but little indication of the influences which consciously or unconsciously must have contributed to its production.

Towards the clearing up of this obscurity and the arriving at a correct appreciation of Locke's historical relations Dr. Hertling has furnished a valuable contribution in the work before us. No one, I think, after reading his book, is likely to deny that the group of philosophising theologians, known as the Cambridge School, exercised an important influence upon the doctrine of the Essay.

Recognising that in the formation of Locke's opinions books played a less important part than personal intercourse, Dr. Hertling is careful to lay a foundation in the evidence of personal relations between Locke and members of the School. The influence seems to have reached him while still at Oxford, and continued to come to him through many different channels. That Locke's position upon theological and ecclesiastical

questions was largely due to the liberal movement at Cambridge can hardly be disputed, and it is from this point of agreement that Dr. Hertling starts in his endeavour to trace the more philosophical connexions. Indications of Locke's acceptance of what may be called the philosophical watchwords of the School are found in his frequent metaphorical allusions to Reason as "the candle of the Lord," and in his recognition of an "intellectual" as opposed to the "sensible" world. Of greater interest are the references which are found to the controversy between Descartes and More on the nature of Space, concerning which, as being a purely metaphysical question, Locke declines to express an opinion in the essay, although it is evident from the papers published by Lord King that it was one to which he had given a good deal of consideration. We find considerable agreement between Locke and More concerning our knowledge of spiritual being, though here too there is a striking contrast between the dogmatism of the Platonist and the cautious attitude of the author of the essay, who refuses to go beyond the lead of ideas, or to exclude the possibility that a power to perceive might be bestowed by God upon a material substance. We have here reached the vital point which distinguishes Locke from all his predecessors. His originality lay, as Dr. Hertling points out, in his endeavour to regard all problems from the standpoint of theory of knowledge. It is then of great interest to ask whether we can trace any connexion between the theories of the Cambridge School and Locke's epistemology. Upon this question Dr. Hertling gives forth a somewhat uncertain sound. He recognises in the essay the existence of that rational tendency which finds its fullest expression in book iv., and he tells us that the claim of the Cambridge School to a place in the history of philosophy must rest upon the philosophical Rationalism of which their Platonism only forms the external covering. Both for them and for Locke knowledge in the strict sense consisted in the intuition of relations between ideas. Nevertheless, Dr. Hertling considers that the existence of any connexion between the two as regards the problem of knowledge must remain open to the greatest doubt, owing to the Mysticism and Intellectualism with which the Cambridge theory of ideas was interwoven. Were an explicit and conscious influence alone in question I should agree at once, or rather deny its existence. Locke seems to me, however, to have taken up into his theory precisely as much of the doctrine as would remain after it had been purged of its dogmatic ontological implications, though he would no doubt have been greatly surprised had he been accused of any indebtedness. On the other hand, Dr. Hertling seems to me occasionally inclined to attribute too much to the conscious influence of the School upon Locke. Thus, for instance, the suggestion that Locke may have recognised Reflexion as a distinct source of ideas in order to obviate the deductions drawn by Cudworth from the Sensationalism of Hobbes (pp. 218, 266) is surely unnecessary when we remember that both the name Reflexion and the thing signified were well known at the time in philosophical literature. The existence of any such overt influence appears most strongly in the agreement of Locke and Glanvill concerning the limits of our knowledge of Nature, though here, as Dr. Hertling remarks, there is a vast difference between the crude external criticism of Glanvill and the careful and systematical treatment of the question in the essay.

Dr. Hertling has a good deal to say on the occasion of the essay and on the polemic against innate principles, to which he devotes separate chapters, and treats incidentally of Locke's relations to Hobbes and Descartes. It is especially interesting to find that in certain respects Locke's conception of the Cartesian philosophy and the attitude which

he assumed towards it were identical with those of the Cambridge School.

It is to be regretted that greater care has not been taken in the verification of references. The following needed corrections of references to the essay have come under my notice: P. 11 (note 2), read ii. 9; 14 for ii. 1, 14; p. 13 (note 1), read ii. 12, 8 for ii. 12, 7; p. 20 (note 3), read ii. 30, 2 for ii. 30, 6; p. 30 (note 1), read iv. 4, 9 for iv. 4, 69; p. 35 (note 4), read § 28 for § 38; p. 53 (note 2), read iv. 14, 2 for iv. 14, 3; p. 62 (note 3), read iv. 1, 2 for iv. 1, 1; p. 70 (note 4), read iv. 12, 7 for iv. 12, 6; p. 71 (note 1), read iv. 11, 14 for iv. 11, 12; p. 84 (note 1), read iv. 8, 7 and 8, for iv. 10, 7 and 8; p. 196 (note 1), read iv. 16, 12 for iii. 6, 12; p. 198 (note 1), read ii. 23, 13 for ii. 23, 11; p. 202 (note 1). read iv. 3, 23 for ii. 23, 23; p. 205 (notes 1 and 3), read iv. 3 for ii. 23; p. 300 (note 2), read i. 2, 5 and 25 for i. 2, 6 and 25. The following errors occur in references to *Locke's Conduct of the Understanding:* p. 57 (note 2), read § 23 for § 22; p. 77 (note 3), read § 33 for § 23. The reference to Campbell Fraser's *Locke* on p. 178 is to p. 229 instead of p. 329; that to Lord King on p. 246 is to the second volume instead of the first. Finally, the quotation from Lord King's book on p. 225 (note 2) is imperfect, and in its original form does not stand in need of any emendation.

Zur Lehre vom Inhalt und Gegenstand der Vorstellungen. Eine psychologische Untersuchung. Von Dr. Twardowski. Wien: Alfred Hölder, 1894. Pp. 111.

This is an excellent piece of psychological analysis; it shows that the author may claim to rank among the most able of that body of careful and conscientious thinkers who have been trained in the school of Professor Brentano. The first forty-eight pages are mainly devoted to an explanation and vindication of the distinction between presented object and presented content, and to an exposure of confusions and errors which have arisen from neglect of it. A presented object is that which we think of; a presented content is the specific modification of consciousness whereby we think of it. The content is presented *in* a presentation; the object is presented *by means of* a presentation. To identify the one with the other is to incur endless confusion. If object were identical with content, we could never think of what does not actually exist; for the specific modification of our consciousness, whereby we think of the non-existent, must always itself have existence. Another absurd consequence of identifying them would be the attribution of the same predicates and component parts to each. The specifying content of the perception or idea of an extended, impenetrable and solid thing would itself be extended, impenetrable and solid. Dr. Twardowski illustrates the antithesis by a parallel with the painting of a picture. The act of painting corresponds to the mental "act" (we should prefer to say "attitude") of thinking about or referring to an object. The painted picture corresponds to the content. The painted landscape which the painted picture represents corresponds to the object. The word "painted" corresponds to the word "presented".

The doctrine that thoughts may exist without corresponding objects is criticised in an instructive way. It has been alleged that contradictory conceptions such as that of a round square are objectless. This view involves a confusion between *existing* and *being thought about*. If no object is thought about, what is it that the thinker refers to when he uses the term "round square"? Obviously he does not refer to the content of his own consciousness. For this content actually exists and cannot there-

fore possess the internal absurdity which excludes existence. It is the object referred to which is regarded as absurd and non-existent. The felt failure to work out the idea of the absurdity is itself part of the content presented *in* the idea *through* which is presented the absurdity of the object.

The last half of the pamphlet is occupied with more special questions. The author gives an elaborate analysis of objects into their formal and material constituents and a corresponding but much less detailed analysis of contents. There is much in this part of the work which is interesting and valuable, but the interest and value, lying as they do mainly in details, would be lost in an abridgment. A good distinction is drawn between apprehension of form and form of apprehension. Those constituents of a presented content whereby the objective form (connexion of the whole with its parts and of these with each other) is apprehended, are material, not formal constituents of the content itself. The form of the content is the connexion of a total apprehension with its component partial apprehensions and of these *inter se*. The book concludes with a discussion of the nature of the object which we cognise through general ideas. He argues that this object does not include the particulars which are comprehended under the class name and that it does not share their multiple nature. Each of the particular instances includes the generic characters as the number 100 includes the number 10. But as 10 differs from 100, so the common characters differ from the particulars in which they are found.

Das Ich als Grüindlage unserer Weltanschauung. Von GUSTAV GERBER, Berlin. London: Williams & Norgate, 1893. Pp. 429.

Dr. Gerber is an empirical Idealist of a very pronounced type, standing aloof equally from the Absolutists in Metaphysic, and the Associationists in Psychology. The present work is a vindication of the claim of this position to be the only tenable standpoint in philosophy. Our author tells us in the preface (p. iv.) that the object of this treatise is to show how the human consciousness of the Universe, Weltanchauung, has been wrought out by the blending of Subjective Thought, the *Ego*, with Objective Feeling, the *Me*. The work consists of nine chapters, in the first of which is shown the relation of things to the words by which they are represented. Words are only the expression of thoughts, and thoughts are not things, but only conscious states resulting from the relation of the conscious subject to its environment,—the *Ego* or *Ich* assimilating the *non-Ego* or *Welt*. Our author's method is that of pure empiricism; at the same time the individual subject or *Ego* is regarded as an abstract or universal spectator of things, for without such an assumption neither science nor philosophy would be possible. This universal *Ego*, however, must be distinguished from the absolute *Ego* of Fichte, as Absolute Idealism begins where Empirical Idealism leaves off.

Dr. Gerber enters into a minute examination of the process by which the object is assimilated to the subject—how the world is absorbed by and nourishes the *Ego*,—the well-known triple process Feeling, Reminiscence, Ideal-Association. There is little novelty in his psychological analysis, which follows the established lines of the modern empirical school; of course he emphasises the importance of the *Ego* as the pith and core of the epistemological Being. The logical Law of Identity, Dr. Gerber says, refers to the identity of the subject and not of the object as is often supposed. To the abiding sense of the *Ego* also he refers the instinct of self-preservation, by which a sentient agent is led to pursue that which is beneficial and avoid that which is prejudicial to the maintenance of its continuity.

In chapter ii. Dr. Gerber criticises the doctrine of Spinoza, that the contrast between Subject and Object is effaced by the higher synthesis of the two in the unity of nature as envisaged by the speculative intellect.

Chapter iii. is a historical retrospect in support of the contention that every philosophical system must rest on the Consciousness of the *Ego*. David Hume is taken as the representative of the Modern School of Association-Psychologists by whom the hypothesis of mental substantiality is more or less explicitly excluded as a *datum* of conscious life.

Chapter iv. is simply an illustration of the well-known pronouncement of Protagoras: "Man is the measure of all things". This is the ultra-individualistic standpoint which our author adopts and defends.

It is contended that underlying all our mental states and operations the apperceptive unity is ever the governing principle of perception, memory and volition.

It is not only that difference and continuity are the forms and conditions of conscious existence, but that a *sense* of difference and a *sense* of continuity must accompany all modes of psycho-activity.

It is further maintained that this sense of personality cannot be engendered by the action of the environment on an organism, but rather that the *Ego* is itself the moulding and organising principle by which the environment is assimilated to the individual—the environment is absorbed by the individual, not the individual by the environment.

Chapter v. is the most perspicuous and best articulated of the entire work; it essays to prove the reality and necessity of the individual *Ego* by the evidence of *four* endowments of the human constitution: (1) The capacity of Freedom; (2) the consciousness of Certainty; (3) the idea of Perfection; (4) the Religious Instinct. The capacity of freedom Dr. Gerber contends is demonstrated by every act of human conduct, for every act implies choice, and deliberate *choice* is *freedom*. Freedom of choice consists, as our author shows by an illustration, not in compliance with impulse but in obedience to restraint, not in following the line of least resistance but in overcoming the stress of the greatest resistance. Volition in short is inhibition, and in the act of inhibiting is revealed the distinction between the noumenal *I* as the energising agent, and the phenomenal *Me* as the sentient patient.

Dr. Gerber next examines the consciousness of certainty, by which he means the assurance we have of objective identity amidst subjective variety. For example, we encounter the same object at different times, we have a conviction that it is the *same* object, although each act of perception is numerically distinct. Whence then comes this conviction? It can but be through the identity and continuity of the *Ego*. The objective and subjective are not two things but indissoluble elements of the same thing, the *Egò* (p. 246). It is the objective sameness of which the subjective *Ego* is conscious, and therefore the assurance accompanying objective recognition is a proof and voucher of the substantial identity of the knowing subject.

The third proof of personality is derived from ethical considerations. All reasonable human conduct is actuated by rational self-love—self, therefore, must be a reality or it could not be a spring of action. Throughout this work Dr. Gerber makes activity the criterion of reality, and in an early note the etymological connexion between Wirken (to act) and Wirklich (real) is indicated; this is after all only the root-form of the Cartesian *Cogito ergo sum*, or the thing is what it does. The concluding chapters of the book are devoted to a very detailed examination of psychological phenomena which had been already sketched in outline.

The work is very comprehensive in its scope, surveying, as it does, every department of mental science with the historical evolution of each and the various methods of research adopted by successive philosophers.

The style is thoroughly Teutonic in its ponderous erudition and prolix precision, but we are afraid it is one of those books more likely to make libraries than epochs.

THOMAS WOODHOUSE LEVIN.

ARNOLDI GEULINCX Antverpiensis *Opera Philosophica*. Recognovit J. P. N. LAND. Volumen tertium idque postremum. Hagæ Comitum apud Martinum Nijhoff, 1893. Pp. xii., 521.

In this last volume Prof. Land gives us (1) Geulincx' "Ethica" consisting of six tractates, the first published by the author during his lifetime, the rest published from lecture notes by disciples after his death. To these are added certain annotations also dictated and posthumously published. Though described as a complete work by earlier editors, the "Ethica" is, as Prof. Land points out, more or less of a fragment, and might, had the author lived, have been supplemented by a tractate on Polity or Social Ethics. (2) Next we have Ethical Disputations, treating mainly of the *Summum Bonum* in opposition to Epicurus. These disputations bristle with quotations from Cicero and Seneca, but there is but slight evidence that Geulincx ever interested himself in the ethical views of Plato or Aristotle. (3) Lastly there are 160 pages consisting of the author's longer notes on Descartes' *Principia*—mostly elucidations with little or no criticism.

With the completion of this work the student of modern philosophy is for the first time in a position to understand one of the most important developments of Cartesianism. In particular the burning question raised some ten years ago as to Leibnitz' relation to Geulincx—the counterpart in miniature of the still older question as to his relation to Newton—may now perhaps be set at rest; the question, *i.e.*, whether Leibnitz owed his conception of a pre-established harmony, in any measure, to Geulincx or not. The famous illustration of the two clocks, which Geulincx was certainly the first to use, will be found in this volume ("Annotata ad Ethicam," p. 211). It certainly looks as if the doctrine of Geulincx was much more of a pre-established harmony and much less of an occasionalism than is commonly supposed; so that, whether Leibnitz was or was not knowingly indebted to his much less fortunate contemporary, he was certainly forestalled by him. But Prof. Land purposes to follow up his good work with a volume dealing with Geulincx' life and doctrine. We shall anxiously await it.

J. W.

Om Moralens Oprindelse. En Psychologisk Undersogelse af Moralsprgsmaalet af OLUF ELLEFSEN. Christiania. Pp. 131.

To all students of philosophy who read Norwegian this work will prove very instructive. Mr. Ellefsen is well read in English philosophy. He furnishes us in chap. i. with a full epitome of the views of our leading English moralists, from Hobbes to Spencer, on the origin of morality.

In chap. ii. our author sketches the element of consciousness and the disturbances to which it is subject. The way is thus prepared for a full discussion of the nature of pleasure and pain and of mixed feelings. The difference of opinion among psychologists in regard to the distinction between will and feeling is shown to spring from the twofold

character of feelings. While pleasure is dependent on a certain degree of outward impression occurring with regularity, or alternations of exercise and rest; pain is caused by the excessive recurrence of some kind of impressions, from hindrance, limitation, or passivity. The theories of observers are then examined, special attention being given to that of Marshall. In chap. iv. Mr. Ellefsen discusses the psychological relationships among individuals. The question is here raised, if experience confirms the belief that our actions are governed by egotistic or sympathetic motives. After a review of various theories our author gives as his view, 'that pleasure and still more pain appear only to be ruling when they assign boundaries to capacity of the individual, *i.e.*, where an individual usurps a regulating authority over the activity of another'. Each person has not only the desire to keep but also to act independently, and this activity brings him into conflict with others. In the regulating of the relationship between these two is to be found the function of morality. In the last chapter the author seeks to trace the psychological origin and function of morality. Moral commands are shown to have their authority in the organic tendency of human activity. The fundamental need in morality is stated to be the continuance and increase of the activity of the soul; the enlargement and continuity of power and of objects of representation. This interesting book concludes with illustrations showing the dominance of these two factors in the life of culture and in the religious life.

ALEX. WITHER.

RECEIVED also:—

W. R. Scott, *A Simple History of Ancient Philosophy*, Elliot Stock, 1894, pp. ix., 88.

G. J. Romanes, *An Examination of Weismannism*, Chicago, The Open Court Publishing Company, 1893, pp. ix., 221.

J. H. Stirling, *Darwinianism: Workmen and Work*, Edinburgh, T. & T. Clark, 1894, pp. xvi., 358.

H. R. Marshall, *Pain, Pleasure, and Æsthetics*, Macmillan & Co., 1894, pp. xxi., 364.

R. Falckenberg, *History of Modern Philosophy*, translated by A. C. Armstrong, jun., New York, Henry Holt & Company, 1893, pp. xv., 655.

W. Bateson, *Materials for the Study of Variation treated with Especial Regard to Discontinuity in the Origin of Species*, London, Macmillan & Co., 1894, pp. xv., 598.

W. Wallace, *Hegel's Philosophy of Mind*, translated from the Encyclopædia of the Philosophical Sciences, Oxford, at the Clarendon Press, 1894, pp. cciv., 202.

H. Campbell, *Headache and other Morbid Cephalic Sensations*, London, H. K. Lewis, 1894, pp. xi., 410.

Ch. Debierre, *La Moelle Épinière et L'Encephale, avec Applications Physiologiques et Médico-Chirurgicales et suivis d'un Aperçu sur La Physiologie de l'Esprit*, Paris, Félix Alcan, 1894, pp. vii., 451.

J. E. Alaux, *Philosophie Morale et Politique*, Paris, Félix Alcan, 1893, pp. vii., 409.

F. W. Foerster, *Der Entwicklungsgang der Kantischen Ethik bis zur Kritik der reinen Vernunft*, Berlin, Mayer & Müller, London, Williams & Norgate, 1894, pp. 106.

Max Dessoir, *Geschichte der Neueren Deutschen Psychologie*, Erster Band, von Leibnitz bis Kant, Berlin, Carl Duncker, London, Williams & Norgate, 1894, pp. xiii., 439.

VIII.—PHILOSOPHICAL PERIODICALS, ETC.

Studies from the Yale Psychological Laboratory. Edited by E. W. Scripture, Ph. D., Instructor in Experimental Psychology, 1892-3. Yale University, New Haven, Conn. Pp. v., 100.

Studies from the Harvard Psychological Laboratory, i. By Hugo Münsterberg. *Psychological Review*, i. 34-60. Macmillan & Co.

Cornell University Psychological Bulletins, I., II. *American Journal of Psychology*, vi. 239-246. Clark University, Worcester, Mass.: J. H. Orpha. III. Mind, N.S., iii. 2.

When we consider the enormous amount of time and labour involved in the getting of a psychological laboratory into working order, and in the training of unskilled subjects in even the more elementary forms of experimental psychological investigation, it will, I think, be admitted that the directors of the three laboratories mentioned above are to be heartily congratulated upon the fact of publication at the conclusion of a single year of work. If none of the results arrived at in these researches are of prime psychological importance, still minor issues have been cleared, and minor points put beyond the reach of future controversy. An adequate thesis for the doctor's degree can hardly be written in less than two years. It may, therefore, be hoped that there is still better material behind that published; and that the past year's crop of *Arbeiten* will be far surpassed by that of 1893-4.

To begin with the Yale *Studies*. (1) The first, by C. H. Bliss, is headed *Investigations in Reaction-time and Attention*. A new chronographic method (superposition of spark-dots upon a tuning-fork curve: "none of the experiments show any latent time"), and a new reaction-key (multiple-key, through which currents can be passed in forty-four different ways), are described. The experiments were carried out at 15″ intervals, with 2·5″ warning-time, and calculated in Holman's way. The remarks upon them fall into four sections: (α) *Influence of light-sensations on the simple auditory reaction* (to telephone-click). This influence was found to be very small, compared with the constant variation due to subjective changes in the condition of the reagent, when the light (brightness or colour) was steady, but became very marked when the light moved. (β) *Influence of sound-sensations on the same reaction*. The influence was slight, so long as the sound was steady; very marked when it was intermittent. (γ) *Difference in lengths of the biaural and monaural reactions*. The former seems shorter, even when allowance has been made for difference in intensity. (δ) *Introspective observations on reactions*. This, the most interesting because the most psychological section, is disappointing. The discussion of the sensorial-muscular difference is scrappy, and the conclusions drawn from it far too dogmatic. The discrepancy between the results of (γ) and those of Wundt[1] may be due partly to the incomplete recognition of this difference in both cases, partly to the extremely brief duration (5-10′) of the single experimental series in the present case. I have experimental material which appears to show that the judgment "Introspection is not to be trusted in estimating results" must be very greatly and quite definitely modified. The analysis of attention will hardly find acceptance. The author distinguishes (*a*) ideational attention first from (*b*) neural attention, which

[1] *Phys. Psych.*, 4th ed., ii. 351. Misquoted by Dr. Bliss, p. 31.

"brings into consciousness the neural sensations" (!). This is curious psychology. Then comes (*c*) feeling attention—very badly so named; *i.e.*, presentative attention to the body or parts of it, apparently in terms of the cutaneous, deeper-lying and organic sensibilities. (*d*) Muscular attention; *i.e.*, apparently, attention to the muscle-sinew-joint sensation-complex. (*e*) Preparatory (motor) attention; apparently a combination of (*b*) and (*d*), at less than their usual intensities. (*f*) Inattention. Incidentally mentioned later is (*g*) expectant (sensory) attention. (*b*) I take to be 'a fiction of the mind'. The other 'kinds' of attention are real enough as contents, but they are neither 'kinds' nor are they co-ordinate. One would like to know the writer's theory of the attention-process in general. These experiments were all made upon one reagent. Two concluding sections deal with cognate subjects. (*ε*) *Influence of change in the state of attention upon the maximum rate of voluntary movement.* Three kinds of change in rate were noticed: one due to disturbances of the attention (the sub-conscious (!) attention), one due to fatigue, and one connected with the appearance and disappearance in consciousness of faint sensations. The experiments must be repeated in greater detail, and the results subjected to a deeper-going analysis. (*ζ*) *Influence of attentional disturbances on the voluntary control of muscles*, illustrated by a graphic method.

(2) The second study is one *On monocular accommodation-time*, by C. E. Seashore. A reaction-method was employed: the ordinary simple (monoc.) time was subtracted from the time with accommodation. Apart from the determination of the accommodation-time itself, the author concludes from his results (*a*) that within limits this time varies with the distance between the 'near' and 'far' points; (*β*) that for equal distances, and constant direction of accommodation, the time is greater for points near the eye, less as they become more remote; and (*γ*) that change of accommodation from near to far requires longer time than change from far to near, this time-difference varying directly with the accommodation-time.[1] (3) *On the relation of the reaction-time to variations in intensity and pitch*, by M. D. Slattery. As regards both intensity and pitch of tones, the author's results confirm those of Martius: that there is no constant decrease in the reaction-time with increase of stimulus-intensity, and that the time decreases as height of pitch increases. But in the case of electrical stimulation of the skin, increase of intensity means decrease of reaction-time.[2] Only two persons were experimented on; and the number of experiments is very scanty. (4) *Experiments on the musical sensitiveness of school children*, by J. A. Gilbert. Ten children were examined, for each year between the sixth and the nineteenth, by minimal changes; the normal being the $\bar{a} = 435$. The liminal differences are, very irritatingly, empirically given; and not stated in terms of vibrations. (5) *A new reaction-key and the time of voluntary movement*, by J. M. Moore and the Editor. The key is an improved Dessoir key.[3] The time of finger-flexion

[1] This last result, which contradicts those of Vierordt, Aeby and Barrett, leads one to think that something may have been wrong with Mr. Seashore's method. Indeed, much the same objections to the reaction present themselves here as arise to the use of it for the determination of sensational duration. But the experiments can only be competently criticised on the basis of a repetition of them.

[2] *Cf.* Wundt's synopsis of previous results: *Phys. Psych.*, 4th ed., ii. 346, 347.

[3] *Arch. f. Physiol.*, 1892, p. 309.

decreases, of extension increases, as the movement is lengthened from 5 to 20 mm. A mechanical explanation is offered. Results were taken from one reagent only. (6) *Drawing a straight line: a study in experimental didactics*, by C. S. Lyman and the Editor. The average errors of ten boys, for various positions, inclinations, pencil-holdings, &c., were determined. 'Experiments' of this kind are not worth much in isolation; something may be gained by their accumulation. (7) *Some new psychological apparatus*, by the Editor, describes the multiple key, a pendulum contact, and a new chronograph.

The first of Prof. Münsterberg's communications is headed (1) *Memory*. Presentations of numbers and colours, visual and auditory, were learned; 2″ being allowed for each presentation. For 'pure' series, the visual memory of all the reagents far excelled the auditory. But "when the two senses act together in recollection, they hinder each other". As it stands, this is hardly proven. The most natural case of "acting together" is that in which "presentations are offered to two senses at the same time"; in which case they are "much more easily reproduced". This case being excluded, we have plainly a weaker associability of the elements *VAVA* . . . than of *VVV* . . . or *AAA*. . . . It was found again that in 'mixed' series the aural memory surpassed the visual. Apart from the fact that the 'mixed' series, which are massed, are of at least four distinct types, we have to set against this conclusion the two considerations that the subjects were 'visuals,' and that Howe[1] found (for such subjects) a blurring of each auditory impression in a series by the impression immediately following it. May not Prof. Münsterberg's result be explicable in terms of attention? Take a typical 'mixed' series, *VAVA*. . . . Here the *V* is easily learned; the *A* with more difficulty. Consequently the *A* is paid more attention. The *V* interval may suffice to prevent the blurring of a preceding *A*. Hence in the tables the *A*-memory would appear to have the advantage. This explanation is borne out by the result that "memory is impeded by a closer combination of different contents," *i.e.*, by as complete as possible a splitting of the attention. Prof. Münsterberg has regarded this investigation throughout as being far simpler than it is.[2] (2) *The intensifying effect of attention*. Experiments were made with visual distances, lights, sounds, and weights; with attention and with distracted attention. In every case (except in two sets of light-results which are specially explained) "the stimuli appear relatively less when the attention is from the outset directed to them". What is really shown is, of course, only this—that an impression attended to *with some difficulty* appears stronger than an equally strong impression easily attended to. Many analogies to this fact suggest themselves. The general question of attentional intensification I cannot enter on here. (3) *A psychometric investigation of the psychophysic law*. It was found that "the stronger effect of the relative differences of stimuli is constantly influenced by the weaker effect of the absolute differences of stimuli". The method was that of the chain-reaction.[3] (4) *Optical time-content*. The material collected here (comparisons of yellow and green, yellow and red, one colour with various colour-bands, colour with letter-series, colour with number-series) is valuable. It is interpreted in terms of the author's

[1] *Am. Journ. of Psych.*, vi. 240.

[2] I would ask the reader to compare Prof. Münsterberg's account of his experiments with that of Müller and Schumann, in the *Z. f. P.*, vi.

[3] This method I do not care to discuss. I have stated my opinion of it in MIND, N.S., ii. 236-7. *Cf.* Meumann in *Z. f. P.*, vi. 389.

time-sense theory. (5) *A stereoscope without mirrors or prisms* is a stroboscope ingeniously turned to stereoscopic account.

My own object at Cornell has been to give an inexperienced class as wide an experimental training as possible. We have, therefore, begun during the year many investigations—on visual and auditory memory, on the localisation of fused tones of similar and dissimilar quality, on the affective tone of colours and clangs, on the apperception of rapid series of impressions, &c.—which time has not permitted us to bring to a conclusion. Mr. Howe's work (1) I regard as chiefly valuable, not for the negative answer which it returns to the question of the existence of 'mediate' association, in Scripture's sense, but for the grave doubts which it throws on the validity of his investigatory method in general. (2) Messrs. Hill and Watanabe were able to disprove Dessoir's conjecture, that the sensorial-muscular reaction-difference depends on the usual reaction-technique, and so to add to the probability of Külpe's explanation of the two forms. (3) Miss Washburn's note on the distance-illusion with inverted head will appear in the next number of MIND. Three other experimental papers are in the press.

E. B. TITCHENER.

BRAIN.—Winter Number, 1893. Alexander Bruce—On a case of descending degeneration of the lemniscus, consequent on a lesion of the cerebrum. G. F. W. Ewens—A theory of cortical visual representation. [That the angular gyrus represents the yellow spot, chiefly of the opposite side, and that the occipital lobe represents one half of each retina, excluding the yellow spot.] E. A. Shaw—The sensory side of aphasia. [Proposes a new scheme to represent aphasic defects, which closely resembles Bastian's, with the addition of an ideational centre.] James Mackenzie—The "Pilomotor" or "Gooseskin" Reflex. [That gooseskin is frequently limited to definite areas; important in connexion with recent work on cutaneous spinal representation.]

AMERICAN JOURNAL OF PSYCHOLOGY.—Vol. vi., No. 2. Thaddeus L. Bolton—Rhythm. [Contains an account of experimental work on the rhythmical grouping of a series of sounds produced by variations of interval and intensity.] E. B. Titchener—Minor studies from the Psychological Laboratory of Cornell University. "Mediate" Association. [Concludes, in opposition to Scripture, that "mediate" association does not occur.] Sensorial and muscular reaction. [That the difference does not depend, as Dessoir supposes, on the form of reaction-key employed, but on the special temperament of some reaction subjects.] John A. Bergström—An experimental study of some of the conditions of mental activity. [On the influence of diurnal variations, barometric conditions and other factors on mental activity as tested by reading, adding and multiplying numbers, memory experiments, &c.; also on the influence of interference of associations in memory experiments.] F. B. Dresslar—A new illusion for touch, and an explanation for the illusion of displacement of certain cross lines in vision. [An interesting and easily tried experiment.] J. S. Lemon—Psychic effects of the weather.

In the INTERNATIONAL JOURNAL OF ETHICS for January, 1894, Mr. John Grier Hibben, of Princeton College, writes thoughtfully on "The Relation of Ethics to Jurisprudence"; but he is under the erroneous impression that Austin and his school announce "arbitrarily that right means always a legal right". Mr. J. S. Mackenzie, in a bright and suggestive article on "Moral Science and the Moral Life," endeavours to convince of one-sidedness both the practical men who repudiate ethical

theory, and the ethical theorists who insist that they have no concern with practice. Mr. Henry C. Adams preaches a wholesome sermon on the "Social Ministry of Wealth". He urges the duty of seizing the opportunity given by the development of labour-saving machinery, to realise the ideal of "making labour pleasant," and, as an important means to this, making the products of labour beautiful. Mr. M. J. Farrelly writes on "An Aspect of Old Age Pensions". While regarding "State endowment of old age" as temporarily a "duty of historic reparation," he looks forward to the "restoration of the principle that the family is an economic unit with duties of mutual assistance" as the ultimate remedy for old age distress. Prof. Raffaele Mariano writes on "Italy and the Papacy". There is an instructive discussion of "the meaning of 'motive'" by Messrs. Muirhead, Mackenzie, Alexander and Ritchie.

The Psychological Review.—I., 1. January, 1894. G. T. Ladd—President's address before the New York meeting of the American Psychological Association. [(1) What is the relation of statistical and experimental psychological investigation to psychology in general? (2) Of this larger psychology to philosophy? (3) And of psychology to conduct and the practical welfare of mankind? The inquiry is to be a preliminary one: "æsthetical and ethical, rather than purely scientific". It consists, in the main, in a protest against one-sided experimentalism, and too great isolation of psychology from the other philosophical disciplines, and indicates the directions in which psychology may in the near future come into contact with its sister-sciences.] J. Royce—The case of John Bunyan. I. [First part of an explanation of Bunyan's mentality in terms of "morbidly insistent mental processes".] H. Münsterberg—Studies from the Harvard Psychological Laboratory. I. [Noticed in the present number of Mind.] Shorter contributions.—F. Galton—Arithmetic by Smell. J. Dewey—The Psychology of Infant Language. E. W. Scripture—Work at the Yale Laboratory. Discussions. —W. James—Prof. Wundt on Feelings of Innervation. C. A. Strong—Mr. James Ward on Modern Psychology. Psychological Literature. Notes.

The Philosophical Review.—III., 1. January, 1894. W. T. Harris—Kant's Third Antinomy. [The old ontology; the criticism of Kant; solution of the antinomy; Sir W. Hamilton's law of the conditioned; the truth of Kant's doctrine.] D. G. Ritchie—The Relation of Metaphysics to Epistemology. [A constructive article, based on a criticism of those of Prof. A. Seth in the *Review*, Nos. 2 and 5. Epistemology is a part of logic.] E. Adickes—German Kantian Bibliography. V. Discussions. —A. Seth—Some epistemological conclusions. J. H. Gulliver and E. Ritchie—The ethical implications of Determinism. Reviews of Books. Summaries of Articles. Notices of New Books. Notes.

Revue Philosophique.—19me Année, No. 1, Janvier, 1894. A. Fouillée —L'abus de l'inconnaissable et la réaction contre la Science ii. La philosophie de la contingence. [Criticises the notion of an *immanent* unknowable, its use and abuse by Lotze, by M. Renouvier, by M. Boutroux and by M. Bergson.] L. Dugas—Observations sur la fausse mémoire. [The explanation offered by M. Lalande (a sudden recall of attention after a moment of absence of mind) would suffice were it not for the curious sense of anticipation, which often accompanies the phenomenon, the feeling that the *next* sentence in a conversation, for example, has been heard before and *will be* recognised as soon as pro-

nounced.] Lévy-Bouhl—F. H. Jacobi et la Spinozisme. [The reaction in favour of Spinoza in the latter half of the eighteenth century, after his almost complete neglect, was largely caused by Jacobi; partly by the controversy with Mendelssohn, in which he brought to light the debt of Lessing to Spinoza, and partly by his direct defence of Spinoza as the only logical and self-consistent dogmatist. Jacobi's intention was to re-instate Spinozism only as a stepping-stone to his own 'philosophy of feeling,' to show that Spinozism, *i.e.*, mechanism, necessitarianism, fatalism, is the logical conclusion of every consequent and vigorous attempt to give an intelligible account of the universe, but that this conclusion is refuted by "an irresistible something in the heart of man". He was more successful in establishing the first step than in carrying his readers on to the second.] Notes et Discussions. Lechalas—M. Delboeuf et la problème des Mondes semblables. Réponse de M. Delboeuf. Analyses, &c. No. 2, Fevrier. Janet (Pièrre)—Histoire d'une idée fixe. [An account of the decomposition, by *suggestion*, of a long-established '*idée fixe*,' the dread of cholera, and of the gradual improvement of the succeeding pathological condition of the patient, whom the removal of the one strong '*idée fixe*' had left a prey to constant feeble and shifting, *secondary, idées fixes*. This partial cure was effected by a régime calculated to re-instate the active volition and suppress the hyper-suggestibility, a state in which some hypnotists and doctors seem disposed to see salvation, but which M. Janet—agreeing surely with the dictates of common-sense—regards as pathological and highly dangerous. The paper is perhaps of therapeutic rather than direct psychological interest, but should be read by every one interested in "suggestion" and its connexion with "*aboulie*".] C. Ferrero—L'inertie mentale et la loi du moindre effort. ["The law of inertia governs the production of the states of consciousness, the law of least effort controls their activity." All psychical life is determined, set in motion, by a sensation coming from without; there is no such thing as spontaneity.] Revue Générale—Histoire et Philosophes Religieuses. Notes et Discussions—A propos de la paramnesie, par J. le Lorain—Les transformations du droit, par P. Girard. Analyses et Comptes Rendues—Travaux du Laboratoire de Psychologie Physiologique. La memorie des joneurs d'échecs. Psychologie des auteurs dramatiques. [Observation of M. Fr. de Curel; marked case of doubling of personality during composition, of being at once a *dramatis persona* and the critic.]

Revue de Metaphysique et de Morale.—September, 1893. L. Weber—L'Evolutionnisme Physique. L. Brunschvieg—La Logique de Spinoza. A. Bertrand—Lettres inédites de Maine de Biran. Enseignement. Notes Critiques. Revue de Périodiques. January, 1894. F. Ravaisson—De L'Habitude. G. Noel—La Logique de Hegel. F. Rauh—Le Principe de la tendance a être. Enseignement. Discussions. Notes Critiques. Supplément.

Philosophische Studien.—Bd. ix., Heft 3. C. Radulescu-Motru—Zur Entwickelung von Kant's Theorie der Naturcausalität. I. [*Introduction.* Kant's system has not yet been adequately considered as a link in the chain of scientific evolution. *Ch.* 1. Ancient philosophy and the antithetic method. Mathematics before the sixteenth century. The concept of function, &c., since Galileo. Origin of the theory of the uniformity of elements in nature, of force, and of causation. The theory of causation in the philosophy of the seventeenth century. Descartes, Hobbes, Spinoza, Leibniz. *Ch.* 2. Influence of physiological investigation in the eighteenth century. Glisson's discovery of excitability. Materialistic hypotheses

of the origin of ideas. Locke. Hume's sceptical solution of the problem of causation. Comparison of the philosophy of the seventeenth and eighteenth centuries.] G. F. Lipps—Untersuchungen über die Grundlagen der Mathematik. II. [*Cf.* p. 151. The facts which underlie mathematics; those on which the arrangement of conscious contents in consciousness depends; logical and temporal-spatial.] K. Marbe—Zur Lehre von den Gesichtsempfindungen, welche aus successiven Reizen resultiren. [The durations of two stimuli decrease, when fusion is to result, with increase of their intensities, but more slowly. Conversely, the differences between the two durations must increase, and more quickly than the intensities increase. The differences increase if the durations increase, but more quickly. It is better that the more intense stimulus last longer than the weaker. Confirmation of the results of Helmholtz and Plateau.] J. Merkel—Die Methode der mittleren Fehler, experimentell begründet durch Versuche aus dem Gebiete des Raummasses. III. [*Cf.* p. 176. Experiments and conclusion.] E. Gruber—Experimentelle Untersuchungen über die Helligkeit der Farben. [It is possible to compare colours accurately with regard to their brightness. Experiments on normal individuals did not allow an inference to be drawn as to the question of 'specific' colour-brightness; experiments on a colour-blind (typical red-green blindness) subject told against the assumption of such a specific brightness. Further experiments are needed. Contrast made the colour-comparison difficult, but did not affect the results.]

Zeitschrift f. Psych. und Phys. d. Sinnesorgane.—Bd. vi., Heft 2 u. 3, 4 u. 5. G. E. Müller u. F. Schumann—Experimentelle Beiträge zur Untersuchung des Gedächtnisses. [These articles have appeared in book form. The investigation is an exceedingly valuable, critical and constructive study, following in principle the lines laid down by Ebbinghaus.] L. Höpfner—Ueber die geistige Ermüdung von Schulkindern. [A statistical paper. *Introduction.* Literature: Wundt, Ebbinghaus, Exner, Galton, Sikorski and Burgerstein. *Observations.* Exhaustion as function of work done. Testing of children as regards (1) assimilation of a sentence; (2) memorising it till the completion of its setting down in writing; (3) writing out the heard (memorised) sentence. The error-curve. *Psychological analysis* of the results as bearing on the study of exhaustion. Steinthal, Strümpell, Kussmaul. Errors of assimilation; influence of the assimilating ideational complexes and of practice. Errors in writing out. Infrequency of errors of co-ordination (clang-idea and writing movements).] M. O. Fraenkel—Ueber eine Depressionsform der Intelligenz in sprachlicher Beziehung. [Two cases. Explanation in terms of the relative susceptibility of cerebral tissue to impression in childhood and adult life.] M. O. Fraenkel—Eine Selbstbeobachtung über Gefühlston. [Introspective confirmation of the presence of a feeling-tone in Ziehen's sense: *Arch. f. Psychiatrie*, xxiv. 1 u. 2.] P. Zeeman—Ueber eine subjektive Erscheinung im Auge. [In looking suddenly through a vertical slit at any bright light one sees a blue-violet, pear-shaped outline, whose axis is at right angles to the centre of the slit. The right eye sees the stem to the right, the left to the left.] Besprechungen. [Long review by F. Tönnies of O. Ammon's *Die natürliche Auslese beim Menschen.*] Litteraturbericht. A. Meinong—Beiträge zur Theorie der psychischen Analyse. I. [*Cf.* Cornelius, "Verschmelzung und Analyse," *V. f. wiss. Phil.*, xvi. and xvii. (1) The presuppositions of the cognoscibility of the relatively simple in the relatively compound. (2) Analysis and judgment of plurality. (3) Sphere of judgment and ideational weight (mass). A timely and acute article (*cf.* Stumpf's *Tonpsychologie*, and Külpe in the *Z. f. P. u. P. d. S.*, v. 360 ff.), which

is, however, open to criticism from several sides.] Litteraturbericht. [Meumann on Münsterberg's *Beiträge*, Heft 4, and Lehmann's *Hauptgesetze*.]

Vierteljahrsschrift für Wissenschaftliche Philosophie.—Jahrgang xviii., Heft 1. R. Willy—Das erkenntnisstheoretische Ich und der natürliche Weltbegriff. [A criticism of W. Schuppe's doctrines. The attempt to distinguish the epistemological subject from the concrete human individual is condemned. Schuppe's antithesis between consciousness and the total content of consciousness, which, according to him, constitutes existence, makes of consciousness a thing *per se*. At the same time it embodies another equally fundamental error, inasmuch as it implies that the world as it exists for us is resolvable into states of our consciousness. On the whole, Herr Willy's criticism is cogent and instructive.] J. Petzoldt—Einiges zur Grundlegung der Sittenlehre. [Consists mainly in a clear and interesting exposition of the results of the researches of Richard Avenarius into the nature of psychical series. Such a series is the psychical correlate of the process by which disturbed equilibrium of a neural system is recovered. This doctrine is critically compared with that of Staudinger, who makes "consistency" play a part analogous to that of disturbed equilibrium in Avenarius' scheme.] Chr. Ehrenfels—Werththeorie und Ethik (Fünfter Artikel). Anhang. [Contains a criticism of Brentano's doctrine. This is admitted to be the only tenable view, if there is really an absolutely and universally valid moral law or categorical imperative. But the writer argues against this fundamental postulate. Among other interesting miscellaneous matter there is a piquantly original sceptical discussion of the ordinary assumption that society must necessarily be benefited by increase in the number of good men and decrease in the number of bad men.] N. Swereff—Zur Frage über die Freiheit des Willens. [Freedom is made to consist in rational deliberation.] Anzeigen, &c.

Allgemeine Zeitschrift für Psychiatrie.—Band l., Heft 3 and 4. Otto Hebold—Ein Beitrag zur Lehre von der Aphasię. [Three cases of aphasia with autopsy.] Otto Snell—Ueber die Formen von Geistesstörung welche Hexenprocesse veranlasst haben. Prof. Kirn—Ueber den gegenwärtigen Stand der Criminal. Anthropologie. [Sums up against the existence of the congenital criminal of Lombroso.]

Zeitschrift f. Philosophie u. Pädagogik.—Jahrgang i., Heft 1. H. Schoen—Ernest Renan. E. Thrändorf—Eine Kirchengeschichte, wie sie nicht sein soll. K. Kehrbach—Das pädagogische Seminar J. F. Herbarts in Königsberg. Alfred Rausch—Zu Lessings Laokoon. R. Tümpfl—Naturwissenschaftliche Hypothesen im Schulunterricht. Mitteilungen. Besprechungen. Aus der Fachpresse.

Zeitschrift f. Philosophie u. philos. Kritik.—Bd. ciii., Heft 1. Ed. Hölder—Fr. Jodl's Vortrag über das Naturrecht. Theobald Ziegler—Religionsphilosophisches. Dr. G. Kohfeldt—Zur Asthetik der Metapher. E. Grüneisen—Zur Erinnerung an Hermann Ulrici. Recensionen. Neu eingegangene Schriften. Bibliographie. Aus Zeitschriften.

Philosophisches Jahrbuch.—Bd. vii., Heft 1. S. J. Pesch—Seele und Leib als zwei Bestandtheile der einen Menschensubstanz gemäss der Lehre des hl. Thomas von Aquin. Gutberlet—Ueber den Ursprung der Sprache. V. Nostitz-Rieneck, S. J.—Leibniz und die Scholastik. Adlhoch, O. S. B.—Herder und Geschichtsphilosophie. Recensionen und Referate. Philosophischer Sprechsaal. Zeitschriftenschau. Miscellen und Nachrichten.

IX.—NOTES.

NEW EDITION OF PROF. BAIN'S "SENSES AND INTELLECT".

Prof. Bain has just published a new edition (the fourth) of *The Senses and the Intellect.* The following is the preface:—

"After a considerable interval of time, in the course of which psychological investigation and discussion, both in Europe and in America, have been more actively carried on than during any former period of philosophical history, I now, for the last time, re-issue this work, with such additions, modifications and emendations as have commended themselves to my mind. I have endeavoured to take full advantage of the numerous suggestions in contemporary philosophical literature, and, while adhering to the main points of doctrine, and the general plan of arrangement, I have introduced improved forms of statement, and corrected what I deemed either inaccurate or imperfect in the expression.

"In regard to the physiological portions, the chapter on the Nervous System has been entirely re-written. This task has been executed by Dr. W. Leslie Mackenzie, Medical Officer of Health for the counties of Kirkcudbright and Wigton, who has spared no pains to embody the results of the latest authorities. I have profited by his assistance, also, in improving the physiology of the Senses. My conviction of the propriety of bringing these topics before the student, notwithstanding the adverse opinion of many, has been strengthened rather than otherwise. It is not merely that the definitions and the doctrines of physiology have a direct application, and that their absence would make psychology poorer in its own province,—it is, further, that the expression of mental states is, in many ways, aided by reference to their physical adjuncts. Even when such adjuncts are so imperfectly known as to have only a hypothetical rendering, the mention of them is still valuable in improving our scanty resources of subjective delineation. Perhaps it may be said that the student should refer to works of Anatomy and Physiology for this special instruction,—which is quite true. At the same time, the including of a suitable physiological selection in a treatise of psychology proper has high expository value.

"It is now generally recognised that systematic Psychology should be disburdened of Metaphysics—that is, the problem of knowing and being—however closely they may be connected. To analyse Subject and Object is a strictly psychological task: the nature of our Perception of a material world is something different and apart. Likewise, what is now termed Epistemology has psychological relationships, but is pursued into issues of a specific character, lying outside pure psychology.

"The chapter on Instinct, which contains the fundamentals of Pleasure and Pain, together with their physical embodiment and expression, and the germ of Volition, has been so far re-cast as to make more explicit the distinction between the Physical and the Mental, while assigning due force to each.

"The supposed origination of our mental products, known to us only in their maturity, has entered largely into psychological inquiry. Whether certain fundamental conceptions—such as Space, Time, Cause, the Moral Sense, the Ego or Personality—are instinctive, or grow out of experience and education, has long been the battle-ground of the philosophy of mind. The controversy may have a somewhat factitious

importance; at all events, it is regarded with more than merely speculative curiosity. The argumentative treatment, however, has assumed a new aspect from the doctrine of evolution, taken in the guarded form of the hereditary transmission of foregone aptitudes or acquirements. Instead of Kant's contention that the notion of Space, as a 'form of thought,' is prior to any experience on the part of each individual, the question now is, whether or not we possess at birth a large contribution towards the full realising of the three dimensions of the extended world. Such a mode of looking at the problem changes the whole character of the research into origins; depriving us of the right to define the absolute commencement of any of the great fundamental notions, and leaving us merely to watch their accessions of growth within the sphere of our observation, and to reason by analogy as to their probable course or manner of growth before entering that sphere. It may, however, be still argued, without fear of rejoinder, that experience or acquisition is the remote genesis of what transcends our available sources of knowledge. The qualifications introduced in the present edition of this work, having reference to experience as opposed to instinct, have taken shape in accordance with the leading hypothesis above sketched.

"The plan and object of the present work, as well as of its continuation, *The Emotions and the Will*, having been conceived more exclusively with a view to practical results, I have seen no ground for materially altering the expository order and the proportions, in the laying out of the details.

"The Retentive power of the Mind, which occupies the largest division of the Intellectual Powers, has received some additions, with a view to elucidate still further the more complex bearings of the Recuperative process.

"I recognise, in the broadest sense, the possibility of advancing psychological doctrines by means of well-contrived experiments. The researches usually called psycho-physical have already borne some fruits, and hold out still greater expectations for the future. They can, at best, cover but a small portion of the wide domain of psychological research; but, if pursued with a clear recognition of introspective concurrence, they may accelerate the pace of psychological investigation, more especially on the side of practical usefulness.

"The account of the Psychology of Aristotle, contributed by Grote to the previous edition, having been embodied in his own posthumous work on Aristotle, is here omitted.

"Subsequently to the publication of the former edition, I appended a Postscript, containing a minute and exhaustive criticism of the psychological parts of Darwin on Expression. This has been retained in the present edition. It serves the purpose of expanding the treatment in the text, and also of illustrating at length the alternative positions as to the respective priority of Emotion and Volition in the order of development."

New Series. No. 11.] [July, 1894.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

I.—MEDIATE ASSOCIATION.

By W. G. Smith.

The process of associative reproduction of ideas, as it is ordinarily stated, is one in which one idea calls up another either by virtue of a direct and immediate resemblance between them, or through the fact of their having formed directly contiguous portions in some previously experienced psychical continuum. But the question may be raised whether the relations between the ideas must have this immediate character, or whether it is possible that an idea may be able to act upon another merely through indirect resemblance or indirect contiguity, and thus by Mediate Association form the occasion of its appearance in consciousness.

That there is such a Mediate Association among ideas was first asserted by Hume, though Hamilton has perhaps given the greatest prominence to the theory. In the *Treatise of Human Nature*[1] we read: "That we may understand the full extent of these relations, we must consider, that two objects are connected together in the imagination, not only when the one is immediately resembling, contiguous to, or the cause of the other, but also when there is interposed between them a third object which bears to them any of

[1] Bk. i. pt. i. § 4.

these relations". It is obvious that such a theory has an important bearing upon the question whether there are "frei steigende Vorstellungen," *i.e.*, ideas whose appearance in consciousness is not explicable in terms of the laws of association.

It is to Scripture that the merit belongs of having first attempted to give an experimental proof of the theory of Mediate Association; according to him the results of the experiments went to prove that this factor was operative in determining the course of ideas in consciousness. On the other hand Münsterberg, at the end of a research begun with the object of determining the extent of its operation, came to the conclusion that there is no Mediate Association among ideas. The experiments of which I wish to give an account in this paper were carried out with the view of throwing further light on this question.

The method used by Scripture was of the following character. By means of an apparatus which enabled him to present visual objects in succession, and for any length of time that was desired, a number of cards were shown to an observer, each card bearing a word and some kind of sign or figure; both words and signs were in each case different. Then another set of words was shown: the words differed in character from those first presented, but each possessed one of the signs used in the first set. These two sets together made up a complete series. Lastly, one of the words was again presented, this time without the accompanying sign, and the observer was asked to name any other word in the series which occurred to him. It is evident that, if in a very large number of cases the word named by the observer had possessed the same sign as the word presented to him, while at the same time this fact was unknown to him, there would be good ground for supposing that the sign had formed an unconscious or "unapperceived" mediating element in the process of associating the two words. In a large number of the experiments carried out by Scripture no trace of Mediate Association could be found. Its presence seemed to be proved only in one group of experiments in which one half of the words in a series were German, the other half Japanese, the mediating sign being a Japanese character. It is these experiments alone which are analysed in detail. The number of observers who took part in the experiments of this group was six. Out of a total of 185 experiments there were only 79 cases in which words were associated which belonged to the same series; obviously these cases alone have any bearing on the question in

dispute. When all these cases were taken into account the ratio of those in which the words possessed the same sign to those which did not was 47 to 32. When those cases were excluded where some immediate connexion between the words was suspected, the ratio was 46 to 23.[1]

It is clear that even if these figures be accepted the total number of cases is too small to give a sufficient proof of the theory of Mediate Association, especially if we take into account the number of observers. But from a perusal of the record of his experiments, which Scripture had prepared for the Leipzig Institute for Experimental Psychology where the research was carried out, I came to the conclusion that certain sources of error had not been sufficiently taken into account in the analysis of the results. In certain cases it seemed possible that owing to some peculiarity in a word, or to its prominent position in the series, the attention, apart from any other influence, might have been directed to it and thus have increased its chance of being recollected. Another source of error lay in the fact that Scripture's observers were called on to give an association to each word in turn in the two halves of a series. If the observer gives an answer in each case when called upon, then he must repeat some of the associations already given; when given a second time an association cannot be accepted as having an independent value. Yet such cases seem to have been accepted by Scripture as free from suspicion.

Münsterberg's experiments, as he himself remarks, were much more extensive than those of Scripture in regard to the number of cases which are recorded, the number of observers, and the variety of the experiments carried out. As his conclusions were entirely negative it is only necessary to indicate briefly the nature of the work done by him. In the first set of experiments the objects to be associated were intelligible words read aloud to the observer, the mediating element being a syllable which was also read aloud. In the next group notes given by a musical instrument connected the two halves of a series. Then followed experiments in which sensations of smell, touch and colour formed the mediating elements. Visual objects alone were next employed in the construction of the series. In the first of these experiments photographs of paintings were connected by strips of coloured paper. The last set was intended to be an exact repetition of the experiments of Scripture: in one half of a series the words were German, in the other half

[1] *Philosophische Studien*, vii. p. 82.

Japanese; the two halves had small complicated figures as accompanying signs.[1]

In order to estimate properly the value of these experiments in relation to Scripture's results, we must remember that according to the latter author Mediate Association is operative only under favourable circumstances. Now it could be argued that only experiments carried out under similarly favourable circumstances could be brought forward as evidence against Scripture's conclusion. Münsterberg himself points out that only in the last two sets of experiments were the methods closely followed which were used in the previous research. But it seems clear that photographs of pictures must arouse extraneous ideas and shades of feeling in various degrees of distinctness which will inevitably tend to obscure any influence of Mediate Association. As to the last set of experiments, where the mediating object was a small complicated figure, it has to be noted that in Scripture's experiments the corresponding Japanese characters were neither specially small nor specially complicated—a fact which Münsterberg had no means of knowing. If Mediate Association be really operative, its influence must in any case be very small, and only by the most careful arrangement of experiments could a decisive result be expected. It seems then that Münsterberg's experiments hardly justify the absolute statement that there is no such thing as Mediate Association.

The present research was begun in Leipzig under the direction of Prof. Wundt, and carried out during 1892-1893. I had the assistance of a number of exceedingly competent observers, who were chosen after trial on account of their fitness for the purposes of this investigation. One of the observers, Prof. Külpe, had previously assisted Scripture in his research on this subject, and I am glad to have this opportunity of acknowledging the valuable help he gave me in carrying on the experiments.

No attempt was made to work with ideas other than those derived from the sense of sight. In this way one had the advantage of using objects which most persons can associate without difficulty, and which allow of great scope for variations. Besides it seemed fairly certain that if the influence of Mediate Association could not be discovered in the train of visual ideas it would hardly be demonstrable in any other way. For reasons, which will be apparent later, only association by contiguity was investigated. During the whole course of

[1] *Beiträge zur experimentellen Psychologie*, Heft 4, pp. 1 ff.

the investigation the observers were carefully questioned in every case of association as to the content of their consciousness at the time, so that the presence of extraneous disturbing influences might at once be detected. No doubt such questioning is liable to the danger that it may bring out a half-fictitious theory of the process of association, instead of an exact description of the state of mind at the time. But the opposite danger of allowing important elements in the process to escape notice was the one which was actually most to be guarded against in the present investigation. In order to obtain material for the experiments a large number of German words of one or two syllables were printed in a type which allowed the words to be read without difficulty. When unintelligible words were needed the words already printed were usually cut up and the syllables rearranged. Each word was printed on a separate card: a space was left above the word on which the various kinds of signs could be placed which were to serve as mediating objects.

I. GROUP.

The object of the experiments in this group was to present the words between which the associations were to be formed for a very short time and in rapid succession. It might be supposed that in this way the observer would have less tendency to reflect on, and consciously relate what was presented to him. In order that the disturbing influence of conscious reflexion might be further eliminated, the observers during almost all the experiments of this group, remained in complete ignorance of the problem which was being investigated. By means of a pendulum apparatus[1] the words were shown for a time which varied very slightly but was at most half a second in length. The observer, who sat at a short distance, looked through a tube at the slit in which the word appeared during the passage of the pendulum. All the words in each series were presented twice, the second time in a somewhat different order. When a word was presented the third time and the observer requested to give an association, the sign which accompanied the word was covered over, so that the word alone was directly perceived.

At first experiments were tried in which all the members in each series were intelligible words (*cf.* Münsterberg's first set of experiments). It was found, however, that too

[1] This apparatus is described in Wundt's *Grundzüge der physiologischen Psychologie*, 4th ed., ii. p. 335.

much opportunity was in this way given for the formation of "inner" or intelligible relations between the words. For this reason, and also because it seemed advisable to lighten the task of the observer by informing him that the associated words must belong to different halves of the series, the words out of which a series was composed were almost always one half intelligible, one half meaningless. Further it was found that the intelligible words, even when no inner connexions were found between them, were much more easily retained in the memory than the meaningless ones. Hence the meaningless word was in most cases used as "stimulus" to the association, the observer being then required to name an intelligible word. The number of cards bearing signs as well as their order was arbitrarily varied, in order that the observers might not in any way be led to form disturbing relations among the words, or to discover the object of the experiments.

In presenting only one half of the words used in a series when the time came for the observer to form associations, Münsterberg's procedure had a distinct advantage over that of Scripture, who, as before remarked, requested the observer to give an association to each word in a series in turn. But when only one half of the words are employed there is a danger that after the first associations the words named may be given because there are no others left to give. Even when fewer are employed similar difficulties may arise. In order to lessen this danger, as far as possible, only three associations were requested in the present group where a series included in all ten words. Afterwards, when the extent of a series was lessened, the number of associations was, as a rule, correspondingly diminished. By doing so one has only a relatively small total of experiments to record. On the other hand there is the advantage that the value of the recorded cases is considerably increased.

Since in the case of all the observers the results with slight variations were similar, it is unnecessary to do more here than present the total numbers in each set of experiments. In the experiments of the first set, *a*, an intelligible word was given as "stimulus" to the association; in the second, *b*, an unintelligible, and in the third, *c*, arbitrarily an intelligible or unintelligible word was given. In these three sets the two kinds of words were mixed together when first presented. In the following experiments, *d*, *e*, the two kinds of words were brought together into separate halves. In the last set, *e*, the mediating object was a coloured strip of paper, while in all the previous sets it was a sign or a figure copied from a

Japanese newspaper. In the table given below, *n* denotes the total number of cases in which the association satisfied the conditions of the experiment, *r* the number of cases that remain after revision and exclusion of cases where some disturbing influence destroyed the value of the experiment; under *ma* is given the number of the revised cases, *r*, in which the associated words possessed the same sign. In the column under *o* are given the numbers of the observers who took part in the experiments.[1]

TABLE I.

	n	*r*	*ma*	*o*
a	121	49	16	3
b	19	9	3	2
c	27	16	2	2
d	88	54	11	3
e	92	67	17	3

Considerable difficulty was experienced in analysing the various cases of association, and in deciding which cases should be rejected. The principle which was relied on in the analysis was that an experiment was unobjectionable only when the ideas, "Vorstellungen," could be regarded as being, apart from Mediate Association, equally liable to be reproduced, or as being, so to speak, in a state of equilibrium. Since the value of the results of such an investigation depends largely on the care with which the various cases are analysed, it will not be out of place to indicate in some detail the character of the various associations which had to be rejected.

Obviously all those associations had to be rejected where the mediating object was consciously present as the bond of connexion between the associated words. In the first

[1] A detailed analysis of the results together with an account of minor details in the methods will be found in the paper "Zur Frage der Mittelbaren Association". Inaug. Dissertation, 1894. Leipzig.

group, however, owing to the way in which the objects were shown to the observers, the number of cases which had to be rejected on this ground was not large. It is equally plain that when the observer remembers that the two associated words were contiguous when the series was first presented the experiment must be excluded. Owing to the large number of cases where the associated words had been contiguous, although there was no recollection of the contiguity, these associations were also excluded.

Besides those instances where the nature of the process of recollection could be exactly specified there were others in which the word named by the observer had remained more or less distinctly in consciousness after being presented the first time, or had spontaneously reappeared before the experiments were made. The latter process was specially prominent in the experiments made with one observer; while the later members of a series were being presented, words from the earlier part tended involuntarily and without any assignable reason to reappear in consciousness. In order to check this tendency he often occupied the pauses which necessarily occurred during presentation of a series by softly humming or beating time; the tendency became lessened when he knew the purpose of the experiments, but it never entirely disappeared. When all the words in a series had indistinctly reappeared before the experiments were made, or where the self-observation seemed somewhat uncertain, the associations were accepted on the ground that the disturbance was not sufficiently great in any particular case to warrant its rejection. One may classify those cases also as due to a disturbing activity of memory where the word named had been recalled to memory by a previous association, and where a word given a moment before was again reproduced.

It is impossible to draw any sharp line between the facts already mentioned and those of another class in which the essential factor seemed to be a heightening of the attention given to an object at its first appearance. A special emphasis may be lent to a word through its having a certain interesting or striking character. Or if a meaningless syllable recall some extraneous intelligible idea this will lead to its making a deeper impression than otherwise would be the case. Some observers showed the latter tendency very strongly; a complex of familiar or interesting ideas would be woven involuntarily and immediately round the word presented. In spite of efforts made to check it the tendency to form an intelligible complex of ideas out of what was

unfamiliar or meaningless remained operative. A similar associating process showed itself in the fact that some observers could not help connecting in some intelligible manner the word with the mediating sign attached to it, however unconnected the two at first sight might seem.

Another factor which resulted in a heightening of the attention was the formation of an intelligible connexion between the words. They were of course always chosen with the view of excluding such relations, but in some cases where the imagination seemed specially active, a connexion was still found. That this process resulted in a special emphasis being given to the words was a fact insisted on by one of the observers. Lastly come two facts of which the explanation is very simple. In the first case the word makes a greater impression through its prominent position at the beginning or end of a series; in the second a word when first seen is read with difficulty, and when at last understood is remembered without difficulty.

Since the observers were directed always to combine associatively words differing in character, associations due to an inner resemblance of the ideas connoted by the words could be formed only where an unintelligible syllable was transformed into something intelligible by the process already referred to: such a complicated activity was, however, seldom met with. Similarity in the structure of the words was the reason given by one observer for a very large number of the combinations which he formed; according to him it was the sound of the word and more especially the sound of the vowels which was the mediating element.

II. GROUP.

In the next group of experiments the attempt was made to remedy certain defects which the method employed in the first group carried with it. The visual objects were presented in such a way that the observer was not disturbed by the exertion demanded for the perception of the words, and had every opportunity of gaining a clear and distinct impression of what was presented to him. During the experiments he sat in a small dark room; in one wall there was an aperture where cards could be inserted without allowing light from the outside to enter. Below the aperture on the inside stood a small electric lamp, by means of which the experimenter, who stood outside the room, could illuminate the cards for any length of time. The duration of the presentation was varied with each person to begin with, and the time chosen which seemed to the observer just sufficient to give a distinct per-

ception of the object: on the average it lasted about three seconds. A series was presented once only; those cards which possessed similar signs very rarely occupied similar positions in the two halves of the series, and those words with similar signs which were to be used in the subsequent experiments never occupied positions at the beginning or end of the two halves.

The mode of classifying the experiments differs somewhat from that of the first group. In the first set, *a*, there were ten members in each series, in the second set, *b*, there were eight. These series were constructed on exactly the same principle as those in the first group; in many cases the old words and signs were used, but always in new combinations; various kinds of mediating signs were employed, letters, figures, numbers and colours. In the third set, *c*, the mediating object was an intelligible word, the intention being to try the associating effect of words which were easily retained and reproduced. The objects which had to be associated were mostly figures, letters and unintelligible words: sometimes there were eight in a series, sometimes six. In the last set, *d*, a series contained only six members which were similar to those of the first and second sets. In some cases the number of experiments was small. Towards the close of the research the experiments were not carried far as the different modifications of method did not seem to secure any new result.

TABLE II.

	n	*r*	*ma*	*o*
a	91	60	14	4
b	63	29	4	6
c	78	42	13	7
d	34	13	3	1

III. GROUP.

The following experiments were devoted to testing the value of a suggestion offered by one of the observers. The

intention was to see whether the influence of Mediate Association would not show itself more readily, when all the objects presented were familiar as well as uninteresting, and were thus capable of being reproduced without difficulty and without rousing other disturbing ideas. After preliminary trials ten objects were chosen and employed in all the experiments. One half of these were cards with coloured spaces on them; the colours being red, green, grey, white, black; in the other half the Greek letters α, δ, π, σ, χ, were used, the mediating objects being Japanese characters like those used in the next group. For each new series the various objects were rearranged. The apparatus and mode of presentation of the objects were the same as those of the previous group. The results confirmed the supposition that the influence of disturbing ideas would be eliminated. Very few of the associations had to be discarded, although the connexions of one series showed a slight tendency to interfere with those which followed. The total number of unobjectionable associations given by six observers was 111. The number of cases possibly due to Mediate Association was 22.

IV. GROUP.

It will be noted that the experiments which have already been described were in no case exactly similar to those of Scripture, though following in general the method initiated by him. In this group the most essential features of some of Scripture's experiments were reproduced. The words and the Japanese characters which formed the mediating objects were the same as those used by him, and they were given in the same order; the only difference was that both words and characters were smaller, though they were still seen with perfect distinctness. In several cases the time during which each word was exposed was the same. Two series with eight members and three with six members were thus reproduced. Here, as in Scripture's experiments, the observer was requested to give an association to each word of a series in turn. The results of the experiments made with four observers were as follows. The total number of the associations was 88; the number of unobjectionable cases was 37, while the number of cases which could be ascribed to Mediate Association was 8.

V. GROUP.

In his volume *Über das Gedächtnis* Ebbinghaus asserts on the ground of his experiments that "there seems to

exist an association not merely through immediate, but also one through mediate succession". The method employed in the last experiments which were made is in one respect similar to that of Ebbinghaus. While in the previous experiments the associative connexions between the various objects were formed during an act of perception which, however distinct and intense, lasted but a short time, the attempt was now made to investigate the effect of relatively firm and permanent associations between the objects. The various series employed were constructed on the following plan. Two sets of words sometimes intelligible, sometimes meaningless, were prepared and written on separate slips of paper, each word being accompanied by a sign, letter, figure or number, as in the previous experiments. The number of members in a series varied from ten to twenty-four. The observer learned the two halves of a series at different times until he knew the connexions in each half almost by heart. After several days cards, each bearing a word from the series which had lately been memorised, were laid before him, and he was requested to sort the cards into pairs. The associations thus formed by five observers may be divided into three classes: (1) those where there was distinct recollection of the mediating object; (2) those formed by a partial and indistinct reproduction of the connexions between the words and mediating objects; (3) those which were the result of arbitrary selection or guessing. Of the associations in the first class 24 were correct and 5 wrong; in the second 10 were right and 12 wrong, while in the third only 3 cases were right (*i.e.*, the words associated had possessed the same sign) as against 42 which were wrong.

It seems clear, that owing to the character of the facts with which we are dealing, any exact mathematical analysis of the results would be out of place. The factors which as we have seen enter into and influence the train of ideas are so numerous, and so difficult to trace with any exactness, that the existence of Mediate Association could be regarded as proved only if the number of cases in which it could serve as a valid explanation exceeded to a large extent and with a certain constancy what might be expected had the associations appeared spontaneously, and, so to speak, accidentally in consciousness. No one supposes that in reality ideas occur accidentally. But where we have excluded, as is done above, the cases where the influence of a definite factor is traceable then we have a right to treat the appearance of an

idea as accidental until some feature in our results forces us to introduce a new hypothesis. If then we treat the results according to the theory of probability[1] the conclusion we must come to is that in none of the groups have we such a surplus of cases, where the associated objects possessed a mediating link, that we are compelled to search for a special hypothesis for their explanation. The highest number reached, in column *a*, Table I., can be explained on the ground that inasmuch as in this set of experiments very many cases were excluded on the ground of association by contiguity, the number of available words in each series was really less than ten. Other variations which occur, sometimes positive, sometimes negative, call for no special remark.

The results of the various investigations may consequently be summed up as follows. In a large number of the experiments made by Scripture the result was purely negative; those which he brings as positive evidence are too ambiguous and too small in number to form a decisive proof. Münsterberg's results were entirely negative; so are those of the present research.[2] It can still, of course, be said that in none of these researches has the right method been adopted, or the investigation been carried far enough. And it is quite clear that theoretically an unlimited experience would be necessary to prove the statement that Mediate Association is in no case operative. On the other hand one has a right to ask for some positive reason for further accumulation of negative evidence.

We must, however, consider in this connexion the statement of Ebbinghaus that his results prove the existence of association through mediate succession. The experiments carried out were, shortly stated, of the following nature. When a series of sixteen meaningless syllables of the form $1_1 1_2 1_3$ . . . had been learned by heart and then afterwards, the same syllables being employed, the labour required to learn a new series which had a regular form, *e.g.*, $1_1 1_3 1_5$ . . . was compared with that necessary to memorise a series in which the order of the syllables was quite irregular, it was found

[1] This treatment is applied both by Scripture and Münsterberg. In the former case unfortunately no explicit statement is given as to the length of the series employed: as a matter of fact they varied in length from six to twelve words.

[2] After the paper had been prepared an account of experiments by Howe (*American Journal of Psychology*, vi. p. 239) came under the notice of the writer. The methods used were similar to those of Scripture and Münsterberg, and the results were completely negative.

that where the transformed series had a regular form the labour of memorising it was much less than that required when the order in the series was quite irregular. The objection raised by Münsterberg,[1] that in reading over a series of syllables the observer might have seen several at the same time and in this way associated those which did not stand immediately beside each other, was taken account of by Müller and Schumann in their recent research on Memory;[2] it was found by them that where this source of error was excluded the association by mediate succession was still operative.

It will however be noted on closer consideration that the method of Ebbinghaus presents one important peculiarity. While in the other researches the connexions between the objects were in most cases formed by allowing the observer passively to receive a distinct impression of what was presented to him, in the experiments carried out by Ebbinghaus the series of syllables was read aloud in regular rhythm by the observer as often as was necessary to enable him to repeat it by heart. The element of motor activity was evidently much more prominent in the experiments carried out according to the latter method than in any of the other experiments. We may in fact with good ground call the associations in the first case predominantly motor; the latter, on the other hand, are predominantly sensory.

A sufficiently exact knowledge of the function of motor activity in the train of ideas has not yet been acquired. Stricker in his *Studien über die Sprachvorstellungen* pointed out the importance of the activity of the organ of speech in the formation of certain of our ideas. Pathological cases like that reported by Sommer,[3] where the patient could recollect properly only when allowed to perform certain movements with hand, foot or tongue, serve to illustrate the same point. And I may be allowed to refer here to the results of some experiments on the relation of attention to association which seem to show that motor activity of the hand, and in particular of the organ of speech, disturbs to a greater or less extent the power of forming associations between visual objects.

The hypothesis suggested by these facts is that the association through mediate succession is due to the con-

[1] *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, i. p. 101.

[2] *Ibid.*, vi. p. 140.

[3] *Ibid.*, ii. p. 143.

nexions formed between the successive activities of the organ of speech exerted in memorising a series. Just as any mechanical activity can be practised until the conscious ideas and volitions which at first are necessary disappear with advancing ease of execution, so a series of syllables repeated aloud until they can be said without a mistake will tend gradually to occupy less and less of consciousness, with the result that the connexions between the different members of the series tend to become mechanical and automatic. And it is quite conceivable that in the formation of a new series of motor activities it is not a matter of indifference whether they come in an entirely new and irregular order, or in an order which has definite and regular relations to a series which had already attained a large degree of mechanical perfection. In this way we may perhaps explain the association by mediate succession of which Ebbinghaus speaks. And the reason why in the other researches on Mediate Association no trace of its influence could be found would lie in the fact that the connexions dealt with were mainly sensory; the associations possessed no definite serial order according to which the objects must recur in a given irreversible succession. And where such an order is wanting it is intelligible that, among the many associations which an object can call forth, only those would be effective which were strong enough to rise into consciousness.

One more point remains to be dealt with. Hume states that ideas can be indirectly related not merely on the principle of contiguity, but also on those of resemblance and causation. If, however, we treat these three principles analytically and reduce them, as he does, to contiguity and resemblance, then as we have already discussed association by simultaneous and successive contiguity, it only remains to discuss the relation of resemblance. As regards this relation, it is evident that if the ideas directly resemble each other in some respect, however slightly, the connexion can still be considered as immediate. On the other hand it may be only through the interposed third object that the ideas are connected, while between them there is no connexion at all. Taking the ordinary interpretation of association by resemblance as applied to the reproduction of ideas we would then have a conscious idea. A acting by resemblance on the unconscious or at least entirely "unapperceived" idea *a*: this idea would call up an idea *b* of a similar degree of latency which in its form would introduce the new idea B into consciousness. It may be asked if the reproduction of the new idea in this way is not a more

complicated and more unlikely process than any hitherto discussed. We have, however, a right to reject this complicated process and abandon the quite unnecessary theory that in association by resemblance the new idea, though similar, is a quite new creation, and in no way identical with that which went before. What we would have then would be an idea A, which persists in consciousness for a time, losing meanwhile its old associates, the complex of ideas which previously surrounded it, but at the same time becoming surrounded by a new ideal complex in which B gradually comes to take the prominent part. It is obvious, however, that on this account of the matter, we have simply a substitution of new elements for old in the complex surrounding A, the appearance of the new ideas being due to direct and immediate association by contiguity.

II.—MR. BRADLEY'S VIEW OF THE SELF.[1]

By J. S. Mackenzie.

When an important philosophical work, like Mr. Bradley's *Appearance and Reality*, is first brought out—a work in which a fresh construction is attempted, with little direct reference to other writers, and at many points without a full development of the lines of thought that are suggested—it is natural that there should be many misrepresentations of its meaning; and it is probable that the criticisms I am about to put forward are of this nature. But perhaps in the case of such a work it is only by incessant criticism and partial misrepresentation that one can hope to get the meaning of the writer at length brought fully to light; and Mr. Bradley, at any rate, is a philosopher whom it is pleasant to criticise; since, if he is misrepresented, he is pretty sure to make the fact known. One feels with him, more than with almost any one else, that writing may be made to combine its own advantages with those of Socratic discourse. Lest, however, what I am about to say should seem more of the nature of an attack on Mr. Bradley's position than it is really intended to be, some little prefatory explanation of what I purpose to do may not be out of place.

In dealing with Mr. Bradley's treatment of the Self, it is not my intention simply to discuss one special point in his metaphysical system. Still less do I aim at a criticism of his metaphysical system as a whole. My object is rather to touch on a particular aspect of his philosophy, which appears to be central and fundamental, and in this way to suggest a criticism which might be extended so as to cover his whole conception of metaphysics. In doing this, my attitude towards Mr. Bradley's work must be in the main negative; but it will, I fancy, be obvious enough that my view of his work is very far from being a hostile one. Mr. Bradley's book—especially when read along with the other parts of his writings that bear upon metaphysics—seems to me to be the most considerable piece of constructive work in philosophy of an independent kind (as distinguished from that suggested in commentaries) that has been attempted in England in this century; and if I were to add in England in any century, and in any country since Hegel, it would be rather my ignorance

[1] Read before the Aristotelian Society on April 16, 1894.

than my knowledge that would make me feel the commendation to be overstrained. And, indeed, even on those points on which Mr. Bradley's work strikes me as least satisfactory, he so often suggests the correction of his own errors and imperfections of statement, that one is led to doubt whether any defect that is to be found in his workmanship is not, after all, rather appearance than reality; and whether, in criticising him, it is really possible to do more than set one part of his writing against another. I may at once confess, for instance, that a good deal of what I felt to be defective in some of the earlier chapters of his work receives its necessary complement in the highly significant passage (chap. xxiv.) on "Degrees of Truth and Reality," and leaves in my mind little more than a lively regret that that chapter was not introduced at an earlier stage in the work, and that its results were not more fully incorporated in the system. On the whole, in fact, it remains doubtful to me whether any really penetrating criticism of Mr. Bradley's book would not affect his method rather than his substance; and, as Mr. Bradley himself lays no claim to excellence of method —seems, indeed, to be rather sceptical with regard to the possibility of any finally satisfactory method in philosophy —one has hardly the heart to make any attack upon him on that ground. Yet I am convinced that the lack of scientific method is the source of a great part of the difficulty of Mr. Bradley's work. His *Appearance and Reality* is, for instance (it is hardly too much to say), a sealed book to any one who does not know his *Principles of Logic*. Yet the Logic is not explicitly treated as an introduction to the Metaphysic, or the Metaphysic as a sequel to the Logic (I understand Mr. Bradley to deny even that there is any such definite connection); and, indeed, the Logic itself begins, avowedly, in the middle. Moreover, I am inclined to think that a criticism of some fundamental points in his method would lead, in the end, to a correction of some inadequacies in his results; and I believe, in particular, that a consideration of his treatment of the Self—which is largely a question of method—would in this way be instructive. If it does not lead to any ultimate disagreement with the most important of his conclusions—and I am not at all sure that it does—I cannot but think at least that it will lead us to lay the emphasis on different points. If it does not materially alter the picture, it will at least affect the disposition of the lights and shades.

What I intend to do, then, is, in the first place, to give a brief account of Mr. Bradley's theory of the Self, so far as I

have been able to understand it; then to suggest what seems a needful correction or extension of his view of it; and finally to indicate, somewhat generally, in what respects this correction would lead to an alteration in his metaphysical results, and in his treatment of Psychology and Ethics. This is, no doubt, "a large order"; and some of the points on which I have to touch will require to be dealt with in a very sketchy way; but, after all, I think it will appear that my main criticism is a single and even a simple one, and that the working of it out is only a matter of detail. And over details, following Mr. Bradley's own example, we need not linger. In particular, it is not necessary to detain ourselves long with Mr. Bradley's positive conception of the Self, which can easily be found by reference to his book, and which, at any rate for our present purpose, is interesting rather for what it omits than for what it contains.

Mr. Bradley's view is, briefly, as follows. He begins (chap. ix.) by distinguishing different senses in which the term "Self" is used, and succeeds in discriminating no less than eight—a number which could probably have been, without very much trouble, still further multiplied. The interest attaching to several of these senses of the term is, however, almost purely dialectical. They are selves of straw which Mr. Bradley sets up merely for the purpose of knocking them down again. His interest in them is simply that of showing that no one of them, taken by itself, contains any ultimate reality; and especially that no one of them can be regarded as *the* reality, in opposition to the mere appearance of the not-self. Now, as it is no part of my object to controvert this conclusion—which, indeed, I regard as incontrovertible—it is hardly necessary for me to trouble the reader here with an enumeration of Mr. Bradley's selves. The enumeration, even as he has given it, and even for the special purpose which he has in view, is probably incomplete. Its interest for us now, at any rate, lies only in the broad lines of demarcation; and these can be pretty shortly explained. The first sense of all, one which Mr. Bradley dismisses (p. 77) without even giving it a number in his list,[1] is what may be called the *Biological Self*. A human being—or, as Prof. Karl Pearson would say, "a human"—impresses us first as a particular physical organism, which we class along with other animals and with plants. In so

[1] Because it is obviously a mere object; and cannot even claim to be a more direct object of experience than other objects. Mr. Bradley is considering, in this chapter, the possibility of regarding the Self as something more, and more real, than a mere object.

far as each such organism can be regarded as a unity, it may be described as a Self. Such a Self, of course, is in no sense an *ego*. So far from being an "I," it is scarcely even a "me"—scarcely even an object apprehended directly as *this-mine*. It is a Self only in the sense of being an object which can be regarded (by some subject) as an organic unity. It is, so to speak, the mere *an sich* of a Self. The second sense in which we may speak of a "Self"—or the first in Mr. Bradley's enumeration (p. 77)—is what may be called the *Psychological Self, i.e.*, the states of an individual consciousness at a particular time. This sense takes us farther in, as it were, and brings us nearer to the "I". It includes, we may say, both the "I" and the "me" at a particular moment in their existence; but it also includes the presentation of objects not specially regarded as mine. This is still a comparatively unimportant sense, so long as it is taken merely as an aggregate of psychical occurrences at a particular time. Such an aggregate is still not a unity for itself; and even for the psychological observer it has only, on the one hand, the unity of a moment of time, and, on the other hand, that of a certain continuity or coherence (which remains as yet undefined), and that of occurring in connexion with a particular animal organism—*i.e.*, with a Self in the first sense. If the psychological observer wishes to find any higher unity than this, he will soon discover, like Hume, that, in the mere series of psychical states as such, he can never at any moment "stumble upon" anything that can be truly described as an *ego*. Accordingly, we are led to try to give unity to the Psychological Self by introducing some conception of system; and this may be done in various ways, some of which are discussed by Mr. Bradley. Thus, we may introduce the idea of a *Normal* Self (p. 79), a character which is in some sense permanent in the midst of changing conditions. This character may be thought of as the *average* state (p. 78) of the individual consciousness; or, it may be described, in the language of a recent German writer,[1] as the "compact majority" of our psychical states, the more or less coherent general body of our inner life. Or, again, we may think of the Psychological Self as constituted by our *interests* (p. 88), by those objects with which, as we say, we "identify ourselves"; or, again, simply by what we *remember* (p. 83). Or we may think of it as a Leibnizian monad (p. 86), or, in some other way, as an independent soul. These are various ways in which we may try to con-

[1] Simmel, *Einleitung in die Moralwissenschaft*.

struct a Psychological Self for ourselves; *i.e.*, various ways in which we may give to our inner life a unity which shall exist for the psychological observer—which shall be for the psychological observer a "me," when he treats his own inner experience as an object. But, again, we may insist that the Psychological Self must be an *ego*, a unity *for itself* and not merely for the observer; an "I" for itself and not merely a "me," when it is itself the observer. This we may express by saying that the true Self is that which is always subject and never object in our experience (p 88 *sqq.*). But if we use such an expression as "that which," we are still making it into an object[1]; we are thinking of it as a thing; and with reference to such a thing we shall still experience the difficulty of Hume, that we nowhere "stumble upon" any such subject-object in the midst of our psychical states. So much, then, for the *Psychological Self*, *i.e.*, the attempt to give unity to our inner life regarded as a whole. But now we come upon what is properly another sense of the term; though it is placed by Mr. Bradley (p. 80) in the middle of the preceding group, standing third in his enumeration. The Self in this sense consists in the mere fact of Cœnesthesia, the mere feeling of individual oneness, which comes to us perhaps especially in the consciousness of pleasure and pain, as *my* pleasure and *my* pain. This Self differs from any of the preceding, inasmuch as it is not a method in which the psychological observer tries to impose unity on the manifold of our inner experience. It is, on the contrary, a unity that exists only for the being who feels it, and only at the moment of feeling. Such a Self is more nearly an "I" than any of the foregoing; it is at least not a mere "me," if we mean by that a mere object identified with our particular individuality. It is, so to speak, an "I-me"—subject and object indistinguishably blended. But, just for this reason, it falls short of being a pure "I". In the mere immediacy of feeling the antithesis between *ego* and *non-ego* has not yet arisen. It is, we might perhaps say, the pure *Fürsichsein* of the Self. This Self I should be disposed to characterise as the *Sentient Self*.[2] Finally, Mr. Bradley speaks of yet another sense of the term "Self"—a sense in which it is negative rather than positive (p. 100). This is the sense in which we speak of

[1] *Cf.* also pp. 321-322. Mr. Bradley's argument at this latter point seems to apply only to the phenomenal Self, taken as subject—though he states the argument as if he intended it to have a wider application.

[2] It might perhaps also be called the *Animal Self*, as contrasted with the mere *Vegetable Self*, which is simply the unity of the physical organism; but these terms would be somewhat misleading.

the "merely subjective," as opposed to the objective; the sense, I suppose, in which we speak of a "personal equation"—a rectification that has to be made in passing from the point of view of the individual focus to the point of view of the universe which we seek to know; the sense in which πρὸς ἡμᾶς is opposed to τῇ φύσει. We might describe this as the *Pathological Self*, representing the disease of subjectivity. It is the Self that intrudes where it is not wanted. It is with reference to the Self in this sense that Hegel uses his favourite pun about mere opinion (*Meinung*) being that which is specially *mein*. It is, I suppose, in this negative sense also that the term "selfish" is used in morals. This sense of the term, then, is the sense in which the Self stands in its own light; or in which, as we may say, the unity of our own individual life stands in the way of the attainment of a larger unity. Thus, on the whole, there are four main senses of the term "Self" that are recognised by Mr. Bradley; which we may roughly characterise as the *Biological Self*, the *Psychological Self*, the *Sentient Self*, and the *Pathological Self*.

The first and the last of these, however, are quite unimportant—at least for our present purpose. The last is merely negative, and, as such, is simply the reflex of some one of the positive Selves, recognised as finite; and the first is merely a particular object of experience, regarded as an organic unity. Practically, therefore, it is only in two senses that the Self plays any conspicuous part in Mr. Bradley's philosophical work—as a sentient unity, and as a psychological construction. In the former of these senses, it is for Mr. Bradley the type of that ultimate unity in which reality is to be found. The pure immediacy of feeling—the mere *Fürsichsein*, if we may so call it[1]—is an undifferentiated totality (undifferentiated at least so far as regards the distinction between subject and object) such as is nowhere else to be found in experience; and the ultimate unity which we seek must be thought of as a similar totality, only raised out of its simple immediacy—transformed, in Hegelian language, from a mere *für-sich* to an *an-und-für-sich*. On the other hand, however, when Mr. Bradley speaks of the Self in the course of his work,[2] it is generally the Psychological Self to which he refers; and, in this sense, he insists that the Self is simply an ideal construction; not anything which we find

[1] Perhaps this is not quite a Hegelian use of the term; but my meaning will, I fancy, be sufficiently obvious.

[2] *E.g.*, p. 524, etc.

in immediate experience, but something which we make for ourselves in the effort to introduce unity into the manifold of our psychical life.

Now, it is no part of my object to criticise Mr. Bradley's treatment of these different senses of the Self. At least the only criticism that I would wish to make is that which is already implied in my restatement of his view, in which I have found it necessary to alter his arrangement, and perhaps even at some points to modify his meaning.[1] The chief defect of his list—as of so many other parts of his work—seems to me to be that it is made without method. One does not see why there should be eight senses rather than a score. When they are methodically arranged, one can see them, I think, as forms of unity that advance progressively inwards; starting from the merely objective unity of the bodily organism, advancing from that to the "me" as a psychological object, and ascending gradually to the "I-me" of immediate sentiency. I do not, however, wish to press this criticism at present; since, as Mr. Bradley's aim at this point is mainly dialectical rather than constructive, it is not so important for his purpose as it is for ours, that the place of the different senses of the Self should be definitely seen. It is enough that all the Selves, when taken as independent existences in opposition to the Not-self, should be shown to lack reality; and in showing this Mr. Bradley certainly seems to me to be successful enough. Even from this point of view, it might be urged that Mr. Bradley's dialectic is not the best kind, since it is purely subversive. A dialectic which, in overturning the more inadequate conception, should at the same time lead us on to a higher one—even if that, in its turn, should also require to be overthrown—would be more satisfactory, even for dialectical purposes. But this is a point to which I intend afterwards to return. In the meantime, what I wish to urge is not any objection to Mr. Bradley's treatment of those senses of the Self which are explicitly recognised by him; but rather that there are some other senses which are equally important, and which indeed are implicitly involved in his own work. My complaint, in short, is that Mr. Bradley has practically treated of the Self only under the head of Appearance. He has subverted the Phenomenal Self, in all its forms, in so far as it sets up to be an independent reality;

[1] I have, for instance, separated Memory from Cœnesthesia; and I am not at all sure that I have fully grasped what Mr. Bradley intends to imply by the latter term, which he does not appear to use quite in its ordinary psychological sense.

but he has not shown, in the second section of his work, how it is to be reconstituted as the necessary implicate of all experience.[1]

It is no doubt a somewhat thankless task to seek to multiply the meanings of such a Protean conception as that of Self. Students of Kant and his commentators would probably be glad to apply a sort of Occam's razor, by insisting that Selves *non sunt præter necessitatem multiplicandi*. I can only hope that I may in some degree atone for the additions to Mr. Bradley's list by the restrictions which I have made on his own enumeration. The series need not be so very alarming, if we recognise clearly that what we have at every point is simply a method of reducing the fact of our experience to some form of unity. Even the Pathological Self is a form of unity, though it is a form that is irrelevant—a form whose essence consists in its irrelevance —a form that stands in the way of a larger and more perfect unity. Moreover, when we have in this way recognised that the Selves enumerated by Mr. Bradley are forms of unity that may be regarded as constituting a progressive series, we are already prepared for the acknowledgment of the existence of further terms in the same progress; and we have even a certain clue to the discovery of the other terms that are required. The obvious defect in all the Selves that we have yet had to consider, is that not one of them can properly be described as an *ego* at all. Not one of them, we may say, is a Self *an-und-für-sich*. The Sentient Self and the Psychological Self regarded as subject are the two that approximate most closely to the required form; but they both fall short of it. The effort to regard the Psychological Self as subject is doomed to failure from the first. The very effort to distinguish it from the object, as that which is always subject, inevitably turns it into another object, and lands us in contradiction. It is not subject for itself, but for the psychologist who contemplates it—*i.e.*, it is object, and not subject at all. It is no wonder, therefore, that in the fierce onslaught of Mr. Bradley's dialectic it is ruthlessly devoured, and leaves not a jot behind. The Sentient Self is reserved for a better fate; but it also can lay no claim to be taken as an *ego*, since within its limpid immediacy the antithesis of

[1] Mr. Bradley's fundamental objection to the Self is that, in whatever sense we take it, it cannot be finally separated from the Not-self, and consequently cannot be affirmed as an independent reality. This objection vanishes at once if the Self be taken simply as the principle of unity in experience. In this case we do not affirm the independent reality of the Self, but only deny the independent reality of the Not-self.

ego and *non-ego* has not yet emerged. It is still, according to the Hegelian metaphor, only the dew-drop, in which "the lightning of subjectivity" lies concealed. We remain, therefore, in want of an *ego;* and it is this lacuna that I wish, if possible, to fill up.

It may perhaps seem rather trite if I now introduce, as additional Selves, two old acquaintances, who must look at first, I am afraid, as if they had stepped out of Kant's *Critique*. But though the cry "Back to Kant!" has sometimes a savour of obscurantism, yet I cannot but think that Mr. Bradley has, at least in the form of his work, if not in its substance, somewhat unduly neglected the Kantian analysis of experience and the subsequent developments that have sprung immediately from it. Accordingly, though I feel a little as Falstaff must have felt about his ragged recruits (though I feel, I mean, that I am introducing somewhat threadbare conceptions, which would really require to be restated in a way that I cannot here attempt), yet I do not hesitate at this point to bring in those two venerable figures, whom I choose for the present to describe as the *Epistemological* or Transcendental *Self* and the Ontological or *Ideal Self*. These are not Kant's names;[1] and, after all, they do not come quite so immediately from him as one might at first suppose. But wherever they come from, and however it may be best to name them, they seem at least to be essential for our present purpose. In proceeding to explain what I mean by them, I wish it to be distinctly understood that I do not believe that I am introducing much change into Mr. Bradley's work. The change which the introduction of these two Selves would make is, primarily, rather formal than material; since they are, in a manner, recognised by him in the course of his metaphysical construction, though they are not enumerated in his list. I believe, however, as I have already hinted, that the explicit recognition of them would lead to a change which, in the end, would be material as well as formal.

By the *Epistemological Self* I mean the simple fact that our experience is thought as a unity. This point has been so fully insisted on by Kant and the Kantians, and is, in a manner, so fully recognised by modern philosophers, including Mr. Bradley himself, that it is needless to dwell upon it now. What it is important to notice, however, is that the emphasis must be laid on *thought*. It is for us *as thinking*

[1] Kant's "Transcendental Subject" is of course different from what is here referred to; it is here (as by Mr. Bradley) entirely rejected.

that experience is taken as a unity ; and this fact leads us to the recognition of a Thinking Self, as distinguised from the merely Sentient Self to which we have already referred. For sentiency experience is not a unity, except in the sense of an immediate undifferentiated[1] content. In thought—or, if you prefer the term, understanding—this immediate unity is broken up. Content and form fall asunder. In Mr. Bradley's language, the "that" is set in opposition to the "what". Nevertheless, experience is for thought a unity. Thought means, we may say, the effort to connect a manifold which has fallen asunder, so as to make it into a whole or system. The idea of a system is the fundamental postulate or presupposition of thought ; and nothing is properly thought or known at all, except in so far as it is somehow brought within the unity of a systematic experience. Now, it may be said that this unity of experience does not involve anything that can properly be described as a Self ; since the unity to which our experience is referred is simply that of *Bewusstsein überhaupt*, consciousness in general, not the consciousness of this or that individual. In a sense this is true, and the truth that is contained in it will have to be borne in mind in connection with what follows. But it is not the whole truth. Though experience is referred to consciousness in general, it is yet, so to speak, focussed for the consciousness of the individual ; or, as Mr. Bradley puts it, "for a finite centre". If we may avail ourselves again of Hegel's pun, knowledge is not *mere* opinion (*Meinung*) ; but it is *at least* opinion ; it is *mine* and something more. I know only as I think ; the "I think," as Kant says, accompanies all my conceptions. It is this "I" or "I think" that I describe here as the Thinking Self, or the Epistemological Self, the Self of Knowledge. It is with this Self that we first reach what can properly be called an *ego*. It is not at all a "me," *i.e.*, it is not any object of which we are aware, as constituting our particular individuality. It is simply the subject of knowledge, the focus to which our experience is brought ; and this focus is not simply the limpid unity of the Sentient Self, but is a unity in which form and content are set over against one another, in which *ego* and *non-ego* are definitely opposed. But this opposition has to be broken down ; and the consideration of the way in which this is accomplished, leads us to what I have called the Ideal or Ontological Self.

[1] The extent to which it is possible to regard pure sense (1) as an actual experience and (2) as entirely undifferentiated, is a point that may be neglected as irrelevant to the present argument.

At the level of understanding, *i.e.*, at the level of the ordinary categorical judgment, in which the "that" and the "what" are still in a manner opposed, we may say either that the content of experience is not adequate to its form, or that the form is not adequate to its content. The form, so to speak, is too wide for its content; and the content is too deep for its form. The content seems to have in it, as it were, an irreducible surd of particularity, which cannot be forced into the form of an intelligible system. We may either say that it is too rich to be comprehended under the forms of thought, or that it is too lawless to meet their requirements. Yet the claim that its material shall be capable of being intelligibly grasped, is one that thought cannot willingly abandon—cannot even, without absurdity and suicide, abandon at all. Our thought, then, at this level, contains in itself an ideal which it cannot surrender, but to which its material is inadequate. Now, this ideal may, in one aspect, be described as the ideal of an intelligible object; but, in another aspect, it may equally well be described as that of an intelligent subject. It is to this latter aspect that I refer when I speak of the Ideal Self. When we speak of the material in our ordinary knowledge as being to some extent refractory, we are passing a condemnation not merely on the material with which we are dealing, but also on the manner of thought which seeks to grasp it. However we may characterise the defect of that mode of thought, whether we say that it errs from being merely relational, from separating the "that" and the "what," from distinguishing and yet not distinguishing the subject and the predicate of judgment, or however else we may express the deficiency; we must at least recognise that it is a defect of point of view, as well as of content, a defect that may be said to attach to the subject as well as to the object.[1] It is needless to spend time in emphasising this point; since it is not one on which I find myself in any way opposed to Mr. Bradley. It is, indeed, a point on which he has abundantly insisted. What I wish to urge is merely that, if this is so, then the ideal which our thought involves may fairly be described as that of a higher Self. This Self I would further characterise as ontological; since the world as apprehended in the light of such an intelligence is what we mean by reality. The Ideal Self, we might even say, is simply the point of view from which reality would appear.[2]

[1] *Cf.* Caird's *Critical Philosophy of Kant*, Vol. I., pp. 423-424.

[2] It will be seen that the opposition between the Epistemological and the Ontological Self is not ultimate. The difference is one of point of

It seems clear that, in the end, we can attach no meaning to a reality which is not reality for an intelligence; and if in our ordinary knowledge we do not fully grasp reality, there is implied the ideal of a higher form of apprehension to which the reality would be present. So far, I do not conceive that I am advancing anything which is not implied in Mr. Bradley's own statements; but as he does not put his doctrine quite in this way, it seems necessary to consider why it is that he has not adopted this precise point of view.

The explanation is partly, I think, as I have already indicated, that he has not taken sufficient account of the work of Kant. Perhaps it may also be not unjust to suppose that he was influenced by a certain antagonism to the "psychological monster"[1] developed by Green on the basis of the Kantian criticism. Now, it is no part of my business here to attempt any defence of Green's "eternal consciousness"; and I am even ready to admit that, if Green's statements were taken literally, there would be a psychological monstrosity involved. But this monstrosity is produced only when the Ideal Self is, as it were, materialised; when it is thought of as a sort of thing, existing alongside of the material with which it deals. Such a view is no doubt suggested when the Ideal Self is spoken of as reproducing itself in time, and as synthesising the content of the finite consciousness. But there is no such monstrosity involved, if we merely take the Ideal Self as the form of unity implied in the completion of knowledge. It might be objected no doubt that, if this unity is *merely ideal*, it ought not to be described as a Self—a term which seems to imply actuality. But this is an objection which could hardly come from Mr. Bradley; for no one recognises more fully than he that it is only

view. The former is a point of view from which appearance and reality are not definitely distinguished. All that we think, whether in the end it is to be called appearance or reality, must be brought within the unity of our thinking experience. This thinking experience might, however, be regarded (as by Kant) simply as phenomenal. The categories under which it is brought may be inadequate. By the Ideal or Ontological Self, on the other hand, I mean that form of unity, involved in our thinking experience, which would meet its ultimate requirements. The Ontological Self is what the Epistemological Self aims at being. The "I think" of the Epistemological Self accompanies all our conceptions, and brings them to focus, but does not succeed in mastering them. The Ontological Self is the idea of the content of the Epistemological Self, as not merely brought to focus, but rendered completely intelligible. (*Cf.* Caird's *Critical Philosophy of Kant*, Vol. II., p. 1 *sqq.*) To the particular *names* that I have here given to these different points of view, I attach no importance.

[1] P. 113. I suppose the reference here to a "timeless self" is intended at least to include Green's view.

in this ideal form that the ultimate reality can be found.[1] An objection that he might perhaps be more ready to urge, is, that this ideal unity carries us, at any rate, beyond the limits of the individual consciousness — *i.e.*, beyond all "finite centres"—and that, consequently, the term "Self" is scarcely applicable to it. It must rather be regarded as standing above the opposition between the *ego* and the *non-ego*. This objection I should, in a sense, be quite disposed to allow. All that I should wish to urge against it is that, however much we may be carried beyond the finite centre of the individual consciousness, yet the reference to an ideal unity, to which we are thus led, is merely a further stage in the process by which we give unity to our experience; and if both the unity of the organism and the unity of immediate sentiency may be described as Selves, this ultimate unity to which thought refers may at least equally well be so described. And it must be remembered that though, in a sense, it carries us beyond our finite centre as finite, yet it is the ultimate point of reference for the individual consciousness; the point of view which it ultimately seeks to occupy, and which it partly succeeds in occupying. It is a mere prejudice to suppose that, because our consciousness is in one respect finite, it cannot in any sense identify itself with the infinite. In all real knowledge we do so identify ourselves; we put ourselves in the position of "spectators of all time and existence". Certainly Mr. Bradley at least cannot deny that, to some extent, it is possible to place ourselves in that position. If it were impossible, his own book on *Appearance and Reality* would also be impossible. The conception of what ultimate reality must mean is only possible at this level. It is obvious that, from the point of view of the mere Sentient Self, such a conception—like any other conception—is altogether impossible; and it is scarcely less apparent that, merely from the point of view of the Epistemological Self—the point of view of ordinary knowledge—such a conception could not be made good. It is only in so far as we can rise above the mere understanding—the merely relational consciousness—to the point of view of reason, that the idea of ultimate truth becomes possible to us. And, in so far as we do this, we identify ourselves with the Ideal Self. In the moral consciousness also a similar identification takes place. The moral attitude is attained only in so far as we set ourselves above the point of view of our merely

[1] Hence, instead of saying that the Self is *merely* ideal, it might be truer to say that any other existence than this is *merely* actual.

individual consciousness, and regard ourselves as third persons, or as objects—as *me*'s. And I believe that in the highest forms of art also a similar transference is involved, a transference from the focus of the merely finite centre to that ideal focus at which absolute truth begins to appear.

I am inclined to think, however, that the ultimate reason why Mr. Bradley has not explicitly recognised this higher conception of the Self, is that he has not quite resolutely placed himself at the point of view of thought. He seems to manifest, throughout, a certain lurking preference for the point of view of sentiency. Feeling, he declares,[1] is a whole. In thought, on the other hand, the unity of immediate presentation is broken up.[2] The "what" is opposed to the "that"; the predicate stands over against the subject. If thought is ever to attain to its own ideal, this opposition must be broken down; thought must come back, somehow, to something like the immediacy of feeling.[3] Again, Mr. Bradley seems to hold[4]—following Lotze, I suppose—that it is in sensation that we first come in contact with reality. Thought starts from this point, and erects ideal constructions out from it. But in these constructions we have got out of touch with reality; and thought can never, without "committing suicide," get back to reality again. Now, that there is an element of truth in this, I do not by any means deny. Sentiency is a sort of whole; but it is a whole simply because it is nothing else, because it is entirely undifferentiated—or, at least, undifferentiated so far as regards any distinction between form and content, subject and object. To set up such an undifferentiated unity as the ideal for thought, is inevitably to lead ourselves astray. And of course this is not really what Mr. Bradley means.[5] He recognises that the ultimate unity must include the differentiation of thought; but still the empty unity of sense remains to the end the form to which he tends to bring back the ideal of thought.[6] In this way Kant, whom perhaps Mr. Bradley has unduly neglected, has in the end his revenge; for the undifferentiated identity, into which Mr. Bradley's Absolute has a tendency, in spite of himself, to sink, bears a curious

[1] P. 159, &c.

[2] P. 162, *sqq.*

[3] See pp. 146, 160, 522, &c.

[4] P. 224, *sqq.* *Cf.* with this Mr. Bosanquet's *Logic*, Vol. I., p. 77—one of the least satisfactory points, as I think, in that excellent work.

[5] See, for instance, p. 107.

[6] *Cf.* Dr. Ward's criticism in the January number of MIND, p. 116.

resemblance to Kant's noümenon. For Mr. Bradley, in fact, as for Kant, reason—the faculty which apprehends the ultimate reality—can do little more than set up the ideal of a barren identity, which can never be realised for thought, because thought can never rise above the form of the understanding. And this view is directly connected with the doctrine that thought can never come into touch with reality.[1] We touch reality only in feeling; the ideal constructions of thought, which branch out from this, are, so far, leading us away from reality. Now, in this also there is no doubt an element of truth. Sentiency has a kind of reality. It has, so to speak, all the reality that it wants; but this is only because it does not want reality at all. As Carlyle used to insist, if you "make your claims a zero," you can easily attain to satisfaction. This is what sentiency does. Sentiency simply is there for itself, and wants nothing more. It keeps this reality, however, only so long as it is content to remain in its pure immediacy. Sense has for sense all the reality that it requires. But when we are seeking for reality, we are philosophising—*i.e.*, we are thinking—and when we are so engaged, we cannot also be at the point of view of the immediacy of sense. What sense means for us when we are thinking is not what sense is for sense, but what sense is for thought[2]; and, at this point of view, sense has no longer any special claim to reality. It is now only an element in a totality—the element, if you like so to put it, of content as opposed to form, the "that" as distinguished from the "what". Sense has now surrendered the reality which it had in its simple immediacy. It now wants to be real, and has consequently lost the reality of self-contentment. It wants to have a place in a systematic world. It has given itself over to thought; and it has no more reality than the thought which uses it to construct a system. We cannot go back to the immediacy of sense. A spark has "disturbed our clod". The "lightning of subjectivity" has shattered that unreflective unity, which is real only because it does not care whether it is real or not; and it is only in the Witch's Kitchen that we can reach reality by going back to that:—

> "Wer nicht denkt,
> Dem wird sie geschenkt;
> Er hat sie ohne Sorgen".

[1] Of course I do not attribute to Mr. Bradley the view that reality lies altogether beyond thought. This he has consistently and emphatically repudiated. See below.

[2] See Caird's *Critical Philosophy of Kant*, Vol. I., p. 393, *sqq.*

For us as thinking beings reality can mean nothing else than going forward to the completed system. And, in a sense, this is fully recognised by Mr. Bradley himself; but the fact that he starts with sentiency, as the type of unity and reality, seems to prevent him from explicitly recognising the way in which the Ideal Self is implicated in the knowledge of reality.

We have now, I think, reached a point at which it is possible to consider how the general content of Mr. Bradley's philosophy would be affected by the explicit recognition of this ideal, which seems to be implicitly present throughout. Of course, any complete discussion of this subject would mean a criticism of his whole philosophic system, and an attempt, so far as is necessary, to reconstruct it. But I believe it would be possible, within a comparatively brief compass, to indicate what I conceive to be the fundamental points at which a change would be required. I may notice these under the following heads: (1) epistemological, (2) dialectical, (3) psychological, (4) ethical, (5) ontological.

(1) As regards epistemology, *i.e.*, the general view of the nature of knowledge, the most characteristic point in Mr. Bradley's doctrine is his opposition between truth and reality[1]—an opposition on which he bases certain criticisms[2] that appear to be directed against the Hegelian view of reality. Truth or knowledge, according to Mr. Bradley, can never be adequate to reality; since truth can only be stated in the form of judgment, and no judgment can comprehend the concrete content of reality. Now, this view seems partly to rest on an inadequate doctrine of judgment—a doctrine which Mr. Bradley himself has done as much as any one to correct. Judgment seems to be regarded as consisting in the attribution of a predicate to a subject,[3] instead of consisting in the attribution of a content to reality. No doubt Mr. Bradley means to imply that the ultimate logical subject is in every case reality; but in any particular case he seems to say that the subject is an undetermined particular to which a predicate is attributed; and as thought can never get beyond such an attribution, thought can never be adequate to reality. Now I do not see how this merely attributive view of the logical judgment can be combined with the view (suggested by Mr. Bradley himself, and more fully developed by Mr. Bosanquet[4]) that the essence of judgment consists in the reference of a content to reality. If we take this view of

[1] P. 544, *sqq.*, *et passim*.
[2] Contained especially in Chap. XV.
[3] P. 163, *sqq.*
[4] *Logic*, Vol. I., p. 76, *sqq.*

the ultimate significance of judgment, then I think we must say that the true subject is never simply a "that," but is from the first the form of an ideal system, within which we seek to place a particular content.[1] And I do not see that it can fairly be said of judgment, so regarded, that it involves an opposition between the "that" and the "what". It is only to the attributive view of judgment that this opposition clings. However, the discussion of this point might carry us too far away from the present subject.[2] And I suppose that, after all, however fully we might recognise that the ultimate significance of judgment consists in the reference of a content to reality, it would still remain true that, at least in the ordinary categorical judgment, this reference is presented in a form which is inadequate to its meaning. We may readily grant, in short, with Hegel,[3] that every categorical judgment, as immediate, must be false—*i.e.*, it necessarily puts the truth in an inadequate form. The only question is—Cannot thought correct this error? Now, even the syllogism might be said in a sense to correct the error of the judgment, inasmuch as it leads us to treat judgments not as isolated statements, but as mutually dependent elements in a system. And any case of concrete knowledge involves a still further correction of the mere abstract logical judgment. Our conception of any object of which we have a real grasp, is not a mere judgment about it, or a mere collection of judgments; but rather, if we are to put it in the form of judgment at all, a nucleus of possible judgments recognised as a totality. Mr. Bradley's book is his own best refutation.[4] He has succeeded to some extent in conveying to the mind of his readers a certain conception of what he understands by the Absolute; but this conception cannot be unfolded in a judgment, or even in a series of independent judgments,

[1] Of course I do not mean to imply that this is the explicit meaning of the ordinary categorical judgment, but only that this seems to be the ultimate significance of judgment.

[2] I prefer also not to enter on the discussion of this here; because, I confess, I am a good deal puzzled by the persistent way in which Mr. Bradley regards the essence of judgment as consisting simply in the attribution of a predicate to a subject. It is probable that I do not rightly understand him. At least, if I do understand him, his view seems to depend on the doctrine that the primary reality is found in the undetermined immediacy of sense; and I do not see what ground he has for holding this doctrine.

[3] *Logic*, Wallace's Translation, pp. 304-305.

[4] If the treatment of Judgment and Syllogism in Hegel's *Logic* is not a better one.

but at most only by a number of judgments taken in connection with one another. In this way we transcend the inadequacy of the ordinary judgment, and attain to a certain form of truth which seems to grasp reality. It may be urged, no doubt, that such a form of truth involves a transcendence of ordinary thought, understanding or *διάνοια*.[1] But surely it is still thought. If the art which adds to nature is "an art which nature makes," surely also any ideal of knowledge, however far it may go beyond the ordinary relational processes of the understanding, must still be an ideal which thought makes; and to say that thought must be understood as being limited to its more inadequate forms—even if it be true that these are the only forms that are capable of definite and complete expression in ordinary grammatical speech—is to impose a somewhat arbitrary limitation on the term. Now, this limitation seems to connect itself, naturally and even inevitably, with the corresponding limitation in the view of the Self. If the Self is to be taken primarily as the Sentient Self, then the Self of Thought comes to be regarded as only a more or less unsatisfactory psychological construction from that basis; and the ideal of thought seems to fall outside the Self altogether. I am far from saying that this is Mr. Bradley's last word on the matter. There are many passages in which what seems to me a more correct view is suggested. But too often Mr. Bradley's Absolute is put forth as if it fell, somehow, beyond thought; as if it could not, in any sense, be regarded as the Ideal Self.[2]

It is here, so far as I can see, that the fundamental difference comes out between Mr. Bradley and Hegel. He does not accept Hegel's identification of thought and reality. Now, a discussion of this subject would again carry us beyond our limits. It is enough to say that Mr. Bradley's recurrent polemic against Hegel on this point seems to depend on the limited view which he takes of the nature of thought. What, indeed, Hegel precisely did mean by his famous *dicta* on this subject, may fairly be a matter for controversy. There has recently been a good deal of discussion about it—a discussion which seems to me to have, to a very considerable extent, cleared away the difficulties by which the subject was beset.[3] But he would be a bold man who

[1] *Cf.* Mr. Ritchie's note in the last number of MIND, p. 241.

[2] The chief passages in which this view seems to be taken, occur, I think, in Chaps. XV. and XXVII.

[3] Mr. Eastwood's note, for instance, in the last number of MIND, p. 222 *sqq.*, seems to me to have satisfactorily removed several of the common misconceptions with regard to the meaning of Idealism.

should profess to be able to explain satisfactorily all the passages in Hegel that bear upon this matter. This much, however, we seem entitled to say, that it is surely at least a ludicrous misconception of Hegel's meaning to suppose that he refers to discursive thought, the thought of the mere understanding, which is expressed in the ordinary categorical judgment. Hegel was very well aware that this does not contain either truth or reality. It is equally a misconception, I am convinced (though at this point there may be more room for difference of opinion), to imagine, as some do, that Hegel meant to oppose thought to emotion and will; so that Schopenhauer, who took will as the fundamental principle, might be regarded as a sort of complement to Hegel. Hegel's essential point, as it seems to me, was that it is at the level of thought or reason, not at the level of sentiency, or at that of the mere understanding, that we attain to truth and reality. The world as it is for reason—*i.e.*, the world as it is for the Ideal Self—is what we mean by reality; and the knowledge of it at that level is what we mean by truth. To understand what is involved in knowledge at this level is, therefore, the same thing as to understand what is involved in reality. Knowledge is the knowledge of reality. It is in this sense that, for Hegel, epistemology becomes identical with ontology. But for Mr. Bradley it seems not to be so. Truth is something different from reality. Truth can never transcend the form of the understanding, and consequently can never grasp reality.[1] If so, it is hard to see how truth can even be a criterion of reality, how we can even have that general conception of the Absolute which Mr. Bradley allows. Here again, indeed, there seems to me to be, in Mr. Bradley's work, a more adequate and a less adequate point of view. The more adequate view seems to come out, for instance, in his recent reply[2] to Dr. Ward with reference to our use of the point of view of the Absolute as a criterion of reality. Dr. Ward, he says,[3] "asks in amazement how finite spirits are to use absolute Reality, as if finite spirits could possibly use, or could be, anything else, as if outside the finite the Absolute were anything at all". This is excellent. It seems fully to recognise that the Absolute is the Ideal Self, and that it enters into the determination of the finite consciousness. But I find it difficult to reconcile this with the view of thought as being hopelessly involved in the opposition between the "that" and the "what," and consequently unable to grasp reality.

[1] P. 168, *et passim*. [2] April number of MIND. [3] P. 239.

Of course I do not wish to ignore or minimise the difficulties that arise at this point, or to imply that I have established a position from which it is possible to judge between Hegel and Mr. Bradley—or even fully to understand either of them. I only wish to point out that the recognition of the Ideal Self, as implicit in knowledge, would lead us rather towards what I understand to be the view of Hegel than towards what I understand to be the view of Mr. Bradley, in so far as he opposes his view to that of Hegel—*i.e.*, it would lead us to think of both truth and reality as being found only when the ideal object is present to the ideal intelligence. If Mr. Bradley means that at this point object and intelligence would become one, and that consequently such intelligence could no longer be described as a Thinking Self, I would urge that this seems to be an attempt to assert identity without difference, which would be self-contradictory. I suppose, however, that Mr. Bradley might maintain that, as the ultimate Self, or focus of reality, to which I am now referring is only an *ideal* Self, truth and reality are never completely present with us. There is always a gulf between any actually realised thought and the ideal which is implied in it. But this does not seem to involve any ultimate opposition between knowledge and reality. In so far as our grasp of reality is inadequate, our knowledge is incomplete. Knowledge, so far as we have it at all, is knowledge of reality;[1] and unless the complete grasp of reality would mean that subject and object fall together in an undistinguished identity—which does not appear to be an intelligible view—the ideal of the attainment of reality is simply the ideal of completed knowledge. At this point no doubt a serious difficulty remains—the difficulty occasioned by the fact that for our thought at any rate this ideal is always an unrealised ideal. If our Ideal Self is, in any genuine sense, our *self* at all, why, it may be asked, does it always seem to lie in front of us, and even in front of us in such a way that ever to come up to it seems impossible? There is, in short, the difficulty of an infinite ideal combined with a finite conscious-

[1] Of course there is a sense in which Mr. Bradley insists that reality is known, *i.e.*, he rejects the Agnostic position, that reality lies quite beyond knowledge. But he holds at the same time that truth or knowledge is not adequate to reality. It leads up to something beyond itself. To this there would be no objection if Mr. Bradley recognised, with Hegel, that that to which thought leads up is *its other*, its necessary implicate. So soon as this is recognised, the opposition between thought and its other is annulled; but so long as this is not recognised, it is hard to see how Mr. Bradley can make his universe one and intelligible.

ness. Why are we finite at all if this infinite ideal is, in any true sense, constitutive (and not merely regulative) of our consciousness? Now it might be possible to remove this difficulty if we could regard human thought as progressive towards an end in which the ideal would be fully attained; and this is a view which some have taken. But this view involves serious difficulties. Of course if we say that it is a *progressus ad infinitum*, this is merely to repeat the difficulty, not to solve it. On the other hand, if we say that at a certain stage in the progress of the individual consciousness a point would be reached at which all its limitations would disappear, this seems scarcely intelligible.[1] At any rate, I do not feel that I can avail myself of this method of escape. Nor do I think it is necessary for my present purpose. I may at once admit that a contradiction remains in individual personality—a contradiction between the infinite side and the finite side. I would merely insist that the infinite side belongs to us as truly as the finite side. The finitude of our nature certainly seems to belong essentially to the human personality. A human personality is connected with a particular animal organism; and, regarding its life as a process of development, it seems to grow through sentiency to understanding, and from that again to advance to the point of view of reason. But since the point of view of reason is that of an all-comprehending unity, it seems impossible that it should be reached completely by any such process. Such a process necessarily starts from the content of a particular experience, focussed at a particular finite centre. This content appears at first in the immediate unity of sentiency, or in a form that approximates to that. It is gradually elevated to the form of understanding; and from this we go on to view it in relation to the complete systematisation of reason. But to see it in the last-named form would be to see it in relation to the whole content of the intelligible world; and it seems clear that this whole content cannot come within the experience of any finite centre, or, apparently, within any experience which starts from, and is conditioned by, a finite centre.[2] Consequently, the point of view of reason remains an ideal. But this does not mean that we do not reach that point of view at all. We reach it

[1] This seems to be the view suggested, for instance, at the end of Mr. McTaggart's interesting paper on *Time and the Hegelian Dialectic*. It appears also, though in a different way, to be the view implied in Green's *Prolegomena*.

[2] That what is in its nature finite should, at some point in a finite progress, suddenly become infinite, seems inconceivable.

as an ideal, *i.e.*, as a form of which the general conditions can be defined, though the particular filling cannot be fully realised; and, in the light of this ideal, our ordinary knowledge can be gradually corrected. We can rise above our ordinary knowledge, so as to criticise it, though we can never go so far as entirely to substitute a higher form of knowledge for it. And this does not mean that the ideal of reason is, in the Kantian sense, a merely regulative conception. It is constitutive, in so far as it defines for us the general conditions by which reality must be determined. If this is so, then the form of truth is identical with that of reality; and we grasp this form as an ideal, though we cannot fully supply the content that is required to give it body. If we could thus fill it in, it would not appear in the form of an ordinary categorical judgment, or as a mere collection of such judgments, but rather as a system of conceptions, perhaps as a dialectical process. Now this view may not be excluded by Mr. Bradley's reasoning. Perhaps it is even the view to which he points. But, if so, it is at least not explicitly brought out; and his treatment of dialectic seems rather to suggest its rejection.

(2) And this leads me to say a word or two about his dialectic. I have already indicated that this appears to me to have the defect of being purely subversive. I am inclined to connect this deficiency with the fact that it has been taken up by Mr. Bradley, if I may venture to say so, in an uncritical way. His fundamental principle is that of self-consistency; and of this principle he has no account to give, except that it is "the rule of the game"—*viz.*, the game of thinking.[1] This way of putting it leaves it undiscussed in what sense and to what extent the principle of contradiction is finally applicable. I do not know that Mr. Bradley has anywhere discussed this question with any thoroughness; and, if the absence of such discussions has not led him astray, it has at least often mystified and misled his readers and critics.[2] If, on the other hand, we recognise that the fundamental principle of thought is conformity to the requirements of the Ideal Self, this conception seems to give a new significance to the principle of self-consistency or non-contradiction. It will enable us, in fact, to substitute for the ordinary view of self-consistency the higher view of

[1] P. 153.

[2] If the discussion of such questions as this is what is to be understood by Epistemology, or Theory of Knowledge, I certainly think that such discussions ought to come at an early stage in a constructive Metaphysic.

consistency with the Self—*i.e.*, with the general conditions of intelligibility. Mr. Bradley's dialectic consists simply in taking up point after point in the world of our experience, and showing that each point, if taken singly as a self-subsistent reality, breaks down in some sort of inconsistency. He does not inquire whether the aspects of experience which thus break down in themselves may not yet be fitted to form elements in an intelligible system—though, of course, he does affirm that they are so fitted. It may not be necessary for an intelligible whole that the various elements which enter into it should be capable of standing self-consistently by themselves; in fact, it may be necessary that they should *not* be so capable (and this, as I understand, Mr. Bradley himself holds[1]). The inner contradiction of the various parts may only show that they must be taken as aspects in an organic whole. Mr. Bradley's dialectic often reminds me of the German proverb, *Aufgeschoben ist nicht aufgehoben*. This means, in its ordinary acceptation, that what is deferred is not necessarily annulled; but I use it to signify that what is set aside is not thereby put in its place. In this respect Mr. Bradley's dialectic may be contrasted with that of Hegel. In the work of Hegel nothing is ever simply *aufgeschoben*, set aside; it is always *aufgehoben*, *i.e.*, taken up into its place in a higher unity. A merely subversive dialectic may be magnificent, but it is not philosophy. Mr. Bradley himself acknowledges that every one of the aspects with which he deals, and which he overturns, must yet somehow be retained in the Absolute; but, except in the highly significant chapter on "Degrees of Truth and Reality" (the kernel of the whole book) there is scarcely any indication of the way in which this is possible; and even that chapter (which comes in almost as if it were an afterthought) is hardly made intelligible, just because the nature of the ultimate criterion has never been clearly stated. As soon as we recognise that the ultimate principle is not self-consistency but consistency with the Self, that our ultimate aim is to see the completely intelligible as it is for the completely intelligent, we perceive that the object of a true dialectic must be not merely that of subverting inadequate points of view, but also that of showing how they are to be taken up as elements in a point of view that is more com-

[1] P. 422. *Cf.* also MIND, Vol. III., No. 10, p. 239, where Mr. Bradley states his view on this point somewhat more explicitly. It is one of the difficulties of Mr. Bradley's book, that his opinions are so often given in the form of comments on the views of others (sometimes vaguely referred to as "popular" views), instead of in that of a definite exposition of his own view.

prehensive. No doubt this is a much more difficult task; and as Mr. Bradley's work is only an *Essay* in Metaphysics, it is perhaps unfair to demand of him that he should actually have done this: but I think there ought at least to be a more explicit recognition that a dialectic of this kind is required for a complete philosophy. Otherwise the view of Degrees of Reality seems to hang rather loosely together with the rest of the system.[1]

(3) On Mr. Bradley's psychology I have not much to say. It strikes me, however, as being a trifle chaotic. He objects to the ordinary three-fold division of the elements in mind; and what he gives in its place[2] seems to be merely an enumeration of aspects, which are not definitely brought into relation to one another. What I wish to suggest is merely that, if we recognise three stages in the development of our consciousness, sentiency, understanding, and reason, to which our view of the Self has led us; the discrimination of aspects at these different levels might lead us to a classification of the elements of mind, which should be more comprehensive than that of the ordinary psychology, and better co-ordinated than that of Mr. Bradley. The ordinary classification—*I know, I feel, I will*—seems to be taken at the level of the understanding; and no doubt this is the level which we most habitually occupy, perhaps even the only level which we can ever occupy with any permanence and completeness. Sentiency and reason may be said, in comparison, to be little more than what is called, in mathematical language, limiting conceptions. Now, at the level of understanding, intelligence does seem naturally to split itself into three broadly distinguishable elements. We have first thought, involving the "that" and the "what," the particular and the universal, in relation to one another. Next we have emotion, connecting itself on the one side with thought and on the other with activity. Finally, we have activity directed to an end, starting from the impulse of desire and ending in the completed volition. These three aspects are broadly distinguishable, though they stand in the most intimate relation to one another, and cannot really be separated. Now, a similar three-fold division may be reflected backwards and forwards into the stages of sentiency and reason; and, so far as we can be said to occupy these

[1] This point about Dialectic, as well as several others in this paper, have been partly anticipated by a criticism of Mr. Bradley's book written by Mr. McTaggart for the *Revue de Metaphysique et de Morale*, January, 1894.

[2] P. 458, *sqq.*

stages, we may become conscious of a three-fold movement taking place in them. When we sink back, so far as it is really possible for us to do so, to the level of simple immediacy, we are aware of the three elements of sensation, pleasure and pain, and appetite. Whether in pure sentiency, if there is any such thing, these distinctions could still be traced, may be a more doubtful point. The more nearly we approximate to this level, the more entirely do the three aspects appear to coalesce ; so that perhaps we may say that, at the limit, they would be identical. Whenever these distinctions appear, we ought perhaps to conclude that "the lightning of subjectivity" has already shattered the simple unity of sense. Similarly, at the stage of reason we may distinguish three sides, which are perhaps best discriminated in their objective aspects as philosophy, poetry, and religion. Subjectively we may describe them by such terms as insight, love, and devotion. The first is the grasp of truth ; the second, the appreciation of beauty ; the third, the affirmation of goodness. Now, here again, at the limit, or in their highest aspects, these three things seem to be indistinguishable.[1] In their most perfect forms, there is scarcely any difference between philosophy, poetry, and religion. Virtue is knowledge ; love is insight : to know is to appreciate and to affirm. The three aspects run inevitably into one another. Yet, on the whole, at any level that we ever actually attain, there remain these three distinguishable aspects. If, however, we were to say that the stage of reason is an unanalysable unity, and that the stage of sentiency is also indivisible, this would give us a five-fold division of our mental life, which would to some extent approximate to the division that Mr. Bradley appears to favour—though it would not be quite identical with it.[2] To what extent the higher stages of mental life may be regarded as being evolved out of the lower, I cannot here undertake to discuss. And on the whole I should be disposed to agree with Mr. Bradley that psychology, as a special science, must be allowed to make those divisions within its material which are most convenient for its own constructions.

(4) With regard to Mr. Bradley's ethics,[3] I wish only to

[1] See Chap. XXVI., especially p. 468.

[2] Mr. Bradley seems to give a certain independence to the æsthetic element in consciousness (p. 458) ; yet in the end he thinks that the distinction between truth, beauty, and goodness is a vanishing one (p. 468). On p. 465 he seems to treat æsthetic feeling as composite (involving pleasure). I find his views on these points puzzling.

[3] Chap. XXV.

refer to a single point, on which I have already incidentally touched. If we accept the view of the Self which I have endeavoured to indicate, it will be necessary to some extent to modify Mr. Bradley's view of the relation between self-assertion and self-denial in the moral ideal. Here, indeed, as elsewhere, Mr. Bradley's purpose is mainly dialectical; and with most of his destructive criticisms I find myself entirely in accord. Much of his criticism is directed against "popular ethics," by which he seems to mean in the main such ethics as that of Butler or that of Dr. Sidgwick, in which the common-sense distinction between the self and the not-self is preserved, and some external principle of conciliation is sought.[1] But in the end Mr. Bradley seems to maintain that, even from the highest point of view, there remains a contradiction in the moral ideal; a contradiction between the affirmation of self, the effort after a harmonious self-development, and the denial of self, *i.e.*, its renunciation for the sake of a wider and more objective content. Such an ultimate contradiction, it seems to me, is abolished, in so far as we are able to identify ourselves with the Ideal Self; and this, I think, we do in the highest moral attitude. It is true, indeed, that we never can so far identify ourselves with this point of view, that the placing of ourselves at it does not involve any self-denial. Just as, in the intellectual life, we cannot attain to the complete truth, and any partial attainment of it is reached by a process in which we sacrifice the inadequate point of view from which we start; so, in the moral life, the raising of ourselves to the universal standpoint involves a renunciation of those impulses that are at first natural to us. But just as there seems to me to be an exaggeration when Mr. Bradley represents our best truth as being still hopelessly sundered from the grasp of reality; so there seems to me to be a similar exaggeration when he represents our best moral ideal as still involving a hopeless antagonism between self-assertion and self-denial. It may be maintained, indeed, that it is rather in the religious attitude than in that of mere morality that we reach a complete identification of ourselves with our best ideals; but, if so, I should say that there is an element of religion in all the higher forms of the moral life. Every great devotion, at any rate, whether to a person or to an aim, seems to involve the placing of ourselves at a point of view that is above that of our merely finite centre. It may not be the point of view

[1] Such as is also sought, in a somewhat different way, in the recent popular work of Mr. Kidd on *Social Evolution*.

of the whole: for a finite being, I suppose, it never can be that. The point of view of the whole, whether theoretically or practically, must always remain an ideal; but it is an ideal that affects and constitutes the actual content both of the theoretical and of the practical life. In neither case are we confined to the region of mere antagonism. And indeed this is in a manner recognised by Mr. Bradley himself; but, from the want of any explicit recognition of the presence of the Ideal Self in the human consciousness, he is not able to find in the ultimate moral ideal a rational unity. It splits in two, because the idea of the whole seems to remain hopelessly external to the individual life.[1]

(5) Finally, I wish to add a little with respect to Mr. Bradley's general ontological position, *i.e.*, with respect to his view of the Absolute, so far as that is affected by the points with which I have been endeavouring to deal. And here it may be well, first of all, to guard against a possible misapprehension. It might be thought that the conception of the Self which I have sought to introduce would have the effect of giving greater prominence to the element of personality than is allowed in the system of Mr. Bradley; and, in a sense, no doubt this is true; but I am anxious to guard against the supposition that anything I have been urging is a defence of finite individuality against the charge of self-contradiction.[2] Personality seems to involve the contradiction of being finite and infinite at once. This contradiction cannot be removed by a *progressus ad infinitum;* nor does there seem to be any clear way of removing it at the end of

[1] I have already criticised Mr. Bradley's view on this point in the *International Journal of Ethics* for January, 1894.

[2] I should not wish, for instance, to press such a criticism as that suggested by Mr. McTaggart in the last number of MIND, p. 192, where Hegel and Mr. Bradley are contrasted with regard to their views of the individual. For, after all, Mr. Bradley himself seems to hold that the ultimate reality is an individual whole; and, on the other hand, surely Hegel's view does not lead to the attachment of any ultimate and independent importance to the reality of the finite individual as such. With regard to Mr. Bradley's view of the individual, I may note here that there seems to me to be a certain inconsistency in his attitude, especially on the ethical side. In a note to p. 431 he seems to insist that the individual has some importance, from the moral point of view, as against society; yet when he deals with a practical question, as in his recent "Remarks on Punishment" (*International Journal of Ethics*, April, 1894), he seems to subordinate the individual to society in the most extreme way. This seems to me to be simply an illustration of the two lines of thought in Mr. Bradley's work—on the one hand, the negation of the part in the whole, and, on the other hand, the reaffirmation of the part. These two lines of thought appear to run parallel, and never really meet.

a finite process. And if this is true of human personality, it seems also to be true of any other to which we can give an intelligible meaning. Personality, as we understand it, is connected with an animal organism, and seems to be inseparable from the limitations and contradictions of such a form of unity. Hence, when Mr. Bradley urges that the Absolute cannot be thought of either as a person or as persons, though of course it must be thought of as including persons, and revealing itself in persons, I cannot offer any clear and intelligible view of personality which would remove his difficulties; nor does it seem to me that the conception of the Self, as I have endeavoured to explain it, involves such a view.

Nor, indeed, do I find any reason to dissent from the general view which Mr. Bradley appears to take with regard to the positive content that it is possible to ascribe to the Absolute. Believing, as he does, that the form of truth—*i.e.*, the form of the logical judgment—is, in the end, inadequate to reality, he is naturally unable to give anything more than a rather vague and general account of the nature of the Absolute. His account comes to little more than that the Absolute is experience, brought into harmony with itself, in the form of a single totality. This doctrine is, of course, not incompatible with the view that the Absolute may contain elements which, taken by themselves, are in a state of self-contradiction. This is, in fact, Mr. Bradley's own view; though, as I have already indicated, the absence of any positive dialectic in his work seems to prevent him from adequately explaining this possibility. Apart from the introduction of such a more adequate explanation, it does not seem to me that it would be possible to add much to Mr. Bradley's account of the Absolute. To add more, it would be necessary for us to be more. All that we can ascribe to the content of the Absolute is what is involved in the conditions of perfect intelligibility for a perfect intelligence. A more positive dialectic might help us more adequately to unfold the nature of these conditions; but it would not, I think, yield us any positive grasp of the nature of the Absolute. I do not see, indeed, how it could even finally decide as to the applicability or non-applicability of such a conception as that of personality to the Absolute. If, for instance, any one were to maintain—as some have maintained—that the ultimate truth of things is to be found in the conception of a kingdom of concrete personalities, in whom intelligence is completely realised, and who are objects to one another; I do not see any adequate ground either for the acceptance

or for the rejection of such a conception. It seems to me that we cannot sufficiently realise it to ourselves to be able to say whether or not it is finally intelligible and self-consistent. It is not, then, with regard to Mr. Bradley's general view of the Absolute that I have, on the whole, any quarrel. The points on which modification seems to me to be produced by the conception that I have tried to explain, are mainly two, which I will now briefly indicate.

In the first place, the position which we have reached enables us to attach a more definite significance to Mr. Bradley's view, that the ultimate reality is spiritual; or at least I think it enables us to hold this view with a more rational conviction. As it stands in Mr. Bradley's work, this doctrine is introduced almost incidentally, and impresses us as little more than a pious conviction. It is true, no doubt, that the life of spirit can be shown by him to come nearer to the form of harmonious individuality than any other form of existence. Still, it is self-contradictory; and the ultimate reality seems to take a form that can hardly be described as spiritual. From our point of view, on the other hand, reality can be nothing other than the ideal of our spiritual nature. This is, we might even say, what we mean by reality. We might, however, express the truth still better by means of the "great saying" of Hegel, to which Mr. Bradley refers,[1] but which he declines to accept: "The Actual is Rational, and the Rational is Actual"; which may be interpreted to mean that, in the end, reality can mean nothing but the completely intelligible for the completely intelligent.

In the second place, as I have already indicated, the more positive dialectic which I would wish to substitute for Mr. Bradley's merely subversive one, would lead us to include as aspects in reality many elements which Mr. Bradley seems simply to exclude. I am aware that in Mr. Bradley's work, as in that of Spinoza, there are two lines of thought—one leading to negation and the other to a positive construction. My complaint is chiefly that he does not adequately bring them together, and does not even seem to indicate any way by which they could be brought together. He destroys the finite, and then reaffirms it; but he does not reconstitute it. He does not show how we get back to it. It is here chiefly that the superiority of Hegel is apparent. Hegel assuredly was not blind to the element of negation and contradiction in human experience; but there is nothing in which the greatness of Hegel is more apparent—apparent

1 P. 552.

even in the eyes of his enemies—than the way in which the great human interests—science, history, morality, art, religion—all find a place as elements in the total revelation of the Absolute. Mr. Bradley, on the other hand, has a certain tendency, to use one of Hegel's forcible expressions, to "trample the roots of humanity under foot". He takes up, one by one, all the leading interests of our life, and throws each of them aside, saying to it, as it were, "Thou hast sinned, and come short of the glory of the Absolute". Hegel, on the other hand, is merciful; and, as soon as any particular interest has confessed its sins, as soon as it has laid bare the contradictions that are involved in it, its sins are forgiven, and it is taken up into the bosom of the Absolute. It seems to me that this is not a small distinction. I cannot agree with Mr. Bradley in the view which he seems to hold[1] that the interest in philosophy is merely an interest in the mystical side of things—that it is merely, so to speak, an effort, for once in a way, to stand on our heads and view things from what is, after all, an unnatural and even, in the end, an impossible position. This mystical interest is, no doubt, an element in philosophy; but it is not the whole. The ideal which it sets before us is not a mere beyond, but a guiding principle in all the concrete interests of life. To believe otherwise is, I think, to be on the verge of that worship of the Unknowable, against which Mr. Bradley himself is ready enough to protest. If this is the best of all possible worlds, every particular thing in it cannot be simply a necessary evil. The particular must be capable of being viewed in the light of the idea of the good. Kant, I think, was wrong in regarding the ideals of reason as merely regulative—if this is to be taken to mean that they do not, in any way, help us to determine reality. But they are *at least* regulative. Part of their interest lies in the way in which they serve as guiding principles in the particular interests of human life—science, art, morals, and whatever others there may be. Mr. Bradley has, indeed, himself thrown much valuable light on many of these particular interests; but on the whole he has a tendency to turn from them, almost with a kind of contempt. The reason is partly, I think, that he does not fully and constantly recognise that these particular interests contain in themselves the same ideal which is explicitly brought out in the effort to grasp the Absolute. What we have in all of them is the Self seeking to realise itself, reason coming to the consciousness

[1] Pp. 5-7.

of its kingdom. This was the truth of which Hegel, more than any one else, seems to have been aware. Mr. Bradley, "der Alles-zermalmende," seems to see it only by glimpses, and in his general attitude towards the particular almost to deny it. In his subversion of all the particular interests of our experience, in their abstract isolation—a subversion which, in itself, is no doubt perfectly just—he does not at the same time bring to light the principle of unity by which they can be reconstituted in a whole; though he does say that they are to be reconstituted. His principle of unity, in fact, is brought in almost as if it were an accident with reference to the particulars of experience—a mere rule of the game, of which we happen to become aware in thinking of them; and then the particulars of experience come to appear, in like manner, as if *they* were accidents with reference to the principle of unity. What I have wished to emphasise is that the ultimate principle of unity is simply the ideal of our nature as thinking beings, or, as I have called it, the Ideal Self. It is a principle which is the fundamental postulate of our intelligence, and which is present as an ideal in that intelligence throughout the whole history of its activity, regulating and constituting its content. In emphasising this truth, I do not conceive, as I said at the beginning, that I am introducing anything new into Mr. Bradley's system; I have only been trying to bring out the idea which underlies his work. It seems to me that he has not himself brought it out with sufficient emphasis, and that his work is on that account less complete and less convincing than it would otherwise have been.

III.—MR. BRADLEY AND THE SCEPTICS.

By Alfred Sidgwick.

What is the reason why those who claim to possess some unconditional knowledge of Reality, seek to avoid an encounter with the sceptic? Why are they still content to assume that the only sceptical opponent they have to face is either one who professes to know that "Reality is such that our knowledge cannot reach it," or else one who "condemns all reflexion"—or at any rate careful reflexion —"on the essence of things"?[1] Surely it cannot be, because these are the easiest kinds of sceptical opponent to refute? Perhaps, then, it is the sceptic's fault for having never sufficiently helped the other party to understand his actual objection. And so it seems worth while to make this attempt. Mr. Bradley's book may, I suppose, be taken as containing the latest statement of the strongest justification that can be found for the claim to possess some unconditional knowledge of Reality. The work has been reviewed as a whole by Dr. Ward in a recent number of Mind, and it is therefore unnecessary here to attempt any general appreciation of its merits and defects. My object is rather to raise a special question, only using the book so far as relevant to that.

The task would be easier if Mr. Bradley's own assertion of knowledge were less intermittent. Though his main intention appears to be to claim the knowledge and to defend it, there are frequent lapses into the recognition that assertion is risky and knowledge incomplete. Some of his scepticism, indeed, is of the kind he himself derides, the kind which is not genuine but dogmatic. And against this we might, if it seemed worth while, urge the old objections which have been so often repeated. For if, as he says (p. 544), "in the end, no possible truth is quite true," then in the end it is not quite true that no possible truth is quite true; and so on for ever, like the house that Jack built. Or again, if nothing but error "could answer the purpose of truth" (p. 549), perhaps that doctrine is hardly erroneous enough to answer this useful purpose. But these are probably slips of expression; there are indications, here and there, that he recognises as relevant the genuine sceptical question:

[1] *Appearance and Reality*, pp. 2, 4.

"What do you mean, and what test of its truth would you allow?" He admits at times, for instance, that the Absolute knowledge claimed is "no more than an outline" (p. 548); that Absolute truth is "abstract, and fails to supply its own subordinate details" (p. 546); and, like almost all philosophers, he frequently shows some of the modesty of true scepticism,—a sense of our human ignorance, and an attempt to remove it by labour rather than by caricaturing objections in order to batter them down. Though Mr. Bradley more than once (*e.g.*, pp. 153, 512) refers to metaphysics as a sort of "game," and quotes (p. xiv.) from his note-book passing thoughts of a somewhat playful kind, the solid work he has done, in Logic and in the criticism of false metaphysics, could only be done by a man who, as he says, "feels in his heart that science is a poor thing if measured by the wealth of the real universe," and who is anxious to make it richer. This feeling, in any case, is the root of the only sceptical[1] inquiry worth the name. And in two different ways Mr. Bradley's genuine scepticism seems to destroy his own claim to put forward a positive doctrine. Sometimes it leads him to offer us a self-contradictory assertion, sometimes a tautology. It is the latter result especially that I wish here to discuss, but the former may, perhaps, usefully be noticed in passing.

Surely, to profess that a piece of knowledge is unconditional, and at the same time to admit that it is in any respect incomplete, is a contradiction. Twilight may, as Mr. Bradley reminds us, have a charm of its own, but that does not justify our calling it absolute daylight "so far as it goes".[2] Twilight is daylight not absolute but obscured by the shadow of the earth, and the same may be said of the darkest midnight; were the shadow away the light would change its character, for us, importantly. How the earth casts its shadow over human knowledge may be seen in one of the supposed truths which Mr. Bradley tries to make us believe about Reality,—that it "is such that it does not contradict itself" (p. 136). The very question whether it does or does not contradict itself gets its meaning only from our human practice of using words, or of thinking thoughts dependent on language. If we mean by Reality all that exists, then to say that it does contradict itself (since it includes all opposites) would seem to be truer, were the

[1] The word is here used as Mr. Bradley uses it in his Preface, p. xii.

[2] *Appearance and Reality*, p. 140.

notion in any way applicable. But the notion itself fails, in the same way as if we were to decide that Reality is, in other respects, a sort of magnified man. The picture of Reality obeying the laws of human thought is as evidently anthropomorphic as any of the other now discarded pictures of the Deity. It is true that an inconsistent Reality is not intelligible to us; but that is perhaps a reason why we should confess our failure to understand it. Of course, if Mr. Bradley merely means to say that some of our beliefs are sounder than others, there seems no fault —except extreme flatness—to be found with that assertion. But obvious flatness is seldom a fault of Mr. Bradley's remarks.

Flatness of a less obvious kind, however,—tautology, elaborate and well-disguised—is the chief objection the sceptic would raise against Mr. Bradley's doctrine of Reality. Any one who is truly anxious "to become aware of and to doubt all preconceptions" may find one disastrous preconception everywhere pervading Mr. Bradley's work,—the assumption that between a false assertion and a true assertion no middle ground exists. Mr. Bradley's superficial treatment of this question in his *Principles of Logic*[1] is, I think, one of the weak spots in that interesting volume.

Ideally, of course, such middle ground does not exist. If a so-called assertion[2] is really a single assertion, then it must be either true or false. That is what 'a single assertion' means. But when we speak of *actual* assertions (so-called), the case is different. Actual 'assertions' may be complex,—partly true and partly false; or again they may, for lack of meaning, fail to be really assertions at all. If I say, for instance, that Absolute Reality is Absolute Reality, I am (on the face of it) not asserting anything, but only using a sentence empty of meaning. As Mr. Bradley himself remarks,[3] "If this ['A is A'] really means that no difference exists on the two sides of the judgment, we may dismiss it at once. It is no judgment at all."

The question what constitutes an assertion, as opposed to a mere noise, is not an easy one. Like all other questions it easily admits of a verbal answer; but to answer it so as to be able to apply the answer securely in practice, is the diffi-

[1] Bk. i., ch. v., § 24.

[2] The word assertion is here throughout used so as to render the distinction between it and 'judgment' irrelevant.

[3] *Principles of Logic*, p. 131.

culty. For instance, an assertion may have a meaning to its maker, and not to any one else. Whose fault is that? Not always the fault of the assertor. A given audience may fail to see a meaning through stupidity, insincerity, indifference, just as much as because no meaning is really there. Nor, again, is it always the fault of the audience. We agree most fully with Mr. Bradley that many 'assertions' have been made in the name of metaphysics—and even by the gravest, most learned philosophers—which are only "preposterous inconsistencies," "hopeless confusions," "meaningless nonsense," and so on. It is possible, too, that "psychological monsters," "strange scandalous hybrids," "imported chimeras," and other ridiculous entities have sometimes, in the service of metaphysics, been taken for real.

Of verbal answers to the question when does an 'assertion' really assert, there are plenty that may be given. Let us adopt Mr. Bradley's own phrase that "judgment, in the strict sense, does not exist where there exists no knowledge of truth and falsehood".[1] Judgment (or assertion) implies a choice, an act of the mind, an adoption of one alternative where another alternative is in theory possible. We do not really judge, then, unless our judgment is conceivably disputable,—is accepted where it might conceivably have been rejected as untrue. And, though this answer, by itself, is only verbal,—that is to say, does not enable us to make certain, in practice, which 'assertions' are assertions—it has one interesting consequence. If such be the nature of assertion (or judgment) then it follows that the *claim* to be making an absolutely indisputable assertion is a *confession* of using words without a meaning. The claim must be made, however, in a particular manner, if it is to have this effect; merely to call our assertion indisputable may mean no more than that we do not at present see how it can be fairly disputed, or that we fully expect it will survive opposition,—an expectation which every truthful assertor feels of necessity. But the claim which destroys a meaning is made in a more undeniable way, namely, by so limiting the meaning itself as to guard it against all possible risk of being proved untrue. If we were to say, for instance, "The Universe exists," and then to define 'The Universe' as 'All that exists,' we might as well declare at once that "A is A".

The process of limiting a meaning so as to guard it against irrelevant opposition is a very familiar one. It is, of course, the business of every assertor to declare, when necessary,

[1] *Principles of Logic*, p. 2.

the meaning of his own assertions, and especially to guard against their being misconceived by his audience. He is constantly saying, in effect, "I *don't* mean this, and I don't mean that, as you might hastily suppose; such and such a question, however natural or interesting, is irrelevant to the assertion I am trying to make". There are nearly always some questions which may be wrongly supposed to be relevant tests of the truth of an assertion, and to explain that these are irrelevant is to declare and to limit our meaning. Thus, for instance, Mr. Bradley, when he says that "the pleasant is generally good"[1] quite legitimately explains that he does not mean the pleasant "as such"; and so explains that the question, whether anything pleasant is evil, is irrelevant to the assertion he is intending to make.

Now, whatever may be the case with other metaphysicians, Mr. Bradley at any rate, as it seems to us, carries this legitimate process of limiting his meaning, beyond the point at which its value ceases. In attempting to clear the light of his candle, he snuffs it out. He claims to be making an absolutely indisputable assertion about Reality,[2] and it is only by the manner in which Mr. Bradley chooses to limit his meaning that the sceptic is prevented from asking whether the assertion is true. I will not do an injustice to the new Athanasian Creed, given at p. 511 and elsewhere, by taking any one of its various 'assertions' apart from the rest, and attempting to accuse Mr. Bradley of meaning it as opposed to its own contradictory. It is enough for our purpose that *some* assertion, no matter what, is supposed to be made about Reality, and that the meaning of this 'assertion' is declared by its maker to be such that it cannot in any way be doubted. It is somehow meant so as to include all possibilities, since "outside our main result there is nothing except the wholly unmeaning, or else something which on scrutiny is seen really not to fall outside" (p. 519). That is to say, he tells us that A is B, and adds that whatever we may rashly suppose to be the meaning of B, *he* means by it simply A and nothing else,—"the supposed Other will, in short, turn out to be actually the same". If assertions, undeniably true, could really be made in this manner, how simple the process of reaching undeniable truth would be!

[1] *Appearance and Reality*, p. 404.

[2] *E.g.*, p. 518: "We hold that our conclusion is certain, and that to doubt it logically is impossible. There is no other view, there is no other idea, beyond the view here put forward. It is impossible rationally even to entertain the question of another possibility."

Reality, I might assert, is of a perfectly general shape. Have you the hardihood to doubt whether this is a valuable piece of knowledge? You cannot do so "rationally," since I mean to include under the predicate term *all* possibilities of shape. Your doubt is therefore a "monstrous pretence, a mad presumption under the guise of modesty" (p. 514).

Our quarrel, such as it is, with those who claim to possess unconditional knowledge of Reality is not so desperate as they sometimes try to make it, and is entirely of their making. Except for their indiscriminate attack upon scepticism, the sceptic has no grievance against them. Nor is he in any way interested in misunderstanding them, but is anxious to get from them all the meaning they can give him, and is grateful for so much of it as he can interpret. The position he desires to take is that of the believer in Free Trade; if the interchange of ideas can be reciprocal, so much the better for both parties, but in any case there would be no sense in his excluding theirs. Philosophy, like other things, may be none the worse for being 'made in Germany'. Still, before accepting a philosophical doctrine, we naturally wish to know what it means to assert; and we naturally distrust the uneasy teacher who tries to prevent our putting this simple question.

If I interpret correctly Mr. Bradley's meaning in the passage quoted a few pages back from his *Principles of Logic*, p. 131, he there agrees with us as to the principle—that an assertion made absolutely indisputable by definition is no assertion at all,—though he would doubtless somehow claim for his own doctrines that they do not come under it. That would be interesting, if the claim could be substantiated. But let us be clear about the principle itself,—for this is the only 'positive' element in our whole contention.

We contend that it does not matter whether we use the *words* 'A is A' or the *words* 'A is B,' so long as in either case we so define the meaning we give to the second term that it shall not have a chance of being in any way different from the first. In either case we are then using a sentence empty of every trace of meaning. The supposed choice of the answer 'yes' in preference to the answer 'no' is then a mere pretence or illusion; we have not had the two alternatives before us. As Mr. Bradley in one passage[1] remarks: "If the Subject is the same as the Predicate why trouble oneself to judge?"

[1] *Appearance and Reality*, p. 168.

There are other passages, however, in both Mr. Bradley's books, which seem more or less directly to conflict with those I have quoted. For instance, there is the chapter in the *Principles of Logic* on the Validity of Inference (§ 22), where a "direct refutation" of a certain sceptical doubt is attempted. The sceptic is there supposed to be asking the reason for a belief, and the believer to be answering that the belief is forced upon him because really no alternative is open. The true sceptic in this situation is, of course, a very different person from the man of straw whom Mr. Bradley demolishes. We do not say, "I know that some alternative is open," but, "What have you done to make sure that every alternative is closed?" We take care not to say the former because we do not yet know whether there is a meaning at all. We do say the latter because, in the course of our experience, we have met not only with utterers of platitudes but with assertors who catch at the first alternative that presents itself, or who blindly follow a leader, or who through timidity, idleness, violent partisanship, or what not, deal hastily or insincerely with the question what alternatives are open; and sometimes when we ourselves have taken what seemed to us a good deal of trouble to face all possible alternatives, some have been overlooked. Hence we have become distrustful; an assertor's mere conviction leaves us cold; we desire to go behind it and see how it arose. Is it likely that we shall leave off this cautious practice, because we meet with an assertor who perversely misunderstands its object and insists that we *must* be making an assertion on our own account? We assert nothing but our desire to know what he means, and what he has done to guard against error.

To ask what an assertor has done to exclude other alternatives involves, of course, the prior question whether the existence of other alternatives, has occurred to him as a possibility. If he answers, "Well, to tell the truth, I had not even supposed another alternative possible," he shakes our confidence in his result. Still, it is never too late to mend. But if he answers, "I am not merely 'unable,' but I am 'prevented';[1] I have really made a genuine effort,

[1] P. 537. An attempt is here made to imagine a difference between inability "directly based on our impotence," and inability based on positive knowledge. Ideally, no doubt, the distinction holds good, but how are we to apply it in actual cases? On the next page Mr. Bradley confesses that our positive knowledge "is finite or fallible . . . on account of our inability and impotence". This we also believe to be the case, but then what becomes of the distinction? It remains ideal, and in the clouds.

and so the inability is no fault of mine," then one can hardly imagine that he knows what he is saying. How does a man set about a deliberate laboured search for something which he, at the same time, holds to be inconceivable,—something the very existence of which he forbids himself to recognise? Mr. Bradley informs us on the one hand that the question whether his doctrine is false is an unmeaning question, and on the other hand that he himself has answered it intelligently in the negative. We are open to believe *either* of these statements, but to believe them both is really beyond our powers.

Such being our difficulty, can any one be surprised that Mr. Bradley's pretence of dealing generally with sceptical doubts should seem to us strangely unsatisfactory? The question as to the standing-ground of the sceptic is raised at intervals[1] throughout the volume, and always on the assumption that the only possible sceptic disputes the *truth* of the doctrine (not its *meaning*) and so is "a brother metaphysician with a rival theory of first principles". But it is our own difficulty that we wish to have removed, not merely a caricature of it; there is nothing interesting in seeing destructible men of straw created and destroyed. Our contention is that from a doctrine that cannot in any way be tested, no consequences, other than merely verbal ones, can be deduced. Acceptance or rejection of it, therefore, makes no difference other than verbal. In accepting it, or rejecting it, the sounds we make are different, but the sense (if there were any sense) would be the same. It seems simpler to call such 'assertions' plainly nonsense.

Perhaps Mr. Bradley believes that his doctrine does admit of a test. As we are not in the secret of its meaning, we do not dispute that it may be so; but we complain that all he offers us is, first, a proof that some other metaphysical assertions are self-contradictory, and, secondly (in favourable cases), some evidence that his own assertions are not so. The criticism of the other assertions is often valuable enough; philosophers have, before now, put forward self-contradictory assertions as true. But the mere fact that a given doctrine is not self-contradictory does not establish its truth, —does not even establish its right to be called an assertion, since an empty tautology (like 'Absolute Reality is Absolute Reality') avoids self-contradiction. To put forward consistency as itself sufficient evidence of truth seems to us to rest on a double error,—the supposition that a self-con-

[1] *E.g.*, pp. 1-5, 136-9, 185, and chap. xxvii.

tradictory 'assertion' is false, and that if an 'assertion' avoids self-contradiction there is nothing else for it to be but true. Our view is that a self-contradictory 'assertion' is, while a consistent one may be, no assertion at all.

We do not suppose, of course, that a man writes a metaphysical essay, to prove that the Real is So-and-so, without having a genuine purpose and meaning. One purpose a metaphysician always evidently has, is to contradict some opposite metaphysicians. Any one, for instance, who carefully shows up the inconsistencies of Materialism is very likely doing good work when he keeps to this. It is tempting to add that it is only when the anti-materialistic doctrine "loses its head, and, becoming blatant, steps forward as a theory of first principles, that it is really not respectable. The best that can then be said of its pretensions is that they are ridiculous".[1] But what good can this kind of talk be likely to do? Are Mr. Bradley's party to be frightened by a volley of abusive epithets airily delivered on mere suspicion? May we not rather give them credit for having outgrown these idols of the nursery? Perhaps, after all, they have something intelligible to say. We prefer, therefore, to ask whether they can give us any information about Reality.

Probably Materialism itself has, before now, done some good destructive work. But at any rate we agree with Mr. Bradley that Materialism is a catching illusion—perhaps more so than any other in Metaphysics—and that the failure of its pretensions deserves to be shown whenever they are really put forward. Our complaint is only that no good can be done by pretending not to hear this admission of ours, and so confounding cheap positive metaphysics with our sceptical logical doctrine that unless there is risk of falsity there is no assertion. What are we to think of a man who finds fault with our "pretensions" and at the same time will not allow us to withdraw them? That is surely too artificial a way of picking a quarrel. Is there not something almost fatuous in the supposition that the person questioned is in a position to explain to the questioner what his question means,—can translate the question into a hidden theory of the Universe, and, when that theory is freely disclaimed by the questioner, refuse to listen? It is a way of ending discussion, no doubt; but the same result can be reached by stopping the ears in a simpler manner. How is the questioner to be satisfied by having a question answered which he does not ask? We do not ask whether faults can be found with

[1] *Appearance and Reality*, p. 126.

certain metaphysical illusions; we admit, or rather insist, that they can. Our question is, What test of the truth of your doctrine will you allow to be relevant? If none, that is what we complain of. If you merely say that we cannot disprove it, that is perfectly true,—at least till we know what it means to assert; and we cannot disprove the 'assertion' that Reality is Reality, nor even that it is Appearance or Unreality. We are not doubting your doctrine, but inquiring into your claim to possess any doctrine at all. We admit that your phrase may mean something true, but we want to discover what that is. Surely you can give us some hint as to how acceptance of it differs from rejection. Or would you prefer that we should "accept" it without discovering this, and merely because you say it, or because it has a pleasant or lofty sound? Well, if we wanted an oracle, there seems to be no immediate dearth of them, and each one announces himself as the only genuine kind. Pleasanter, loftier sounds are to be heard at a Popular Concert; indeed, music is perhaps a better means of expression than language, for the mind that wishes "to wander aimlessly and to love it knows not what".[1]

I am, of course, far from wishing to suggest that the question, what we know of Reality, is itself a worthless one. As we view the matter, even our negative knowledge of Reality—our knowledge that such and such an account of it is either nonsense or misleading—has a value. And on the details of this knowledge we find ourselves greatly in agreement with Mr. Bradley. That the Real "sits apart . . . and does not descend into phenomena," or that "everything is so worthless on one hand, so divine on the other, that nothing can be viler or can be more sublime than anything else," are phrases whose only possible meaning appears to us, as to Mr. Bradley, absurd and mischievous. The fact that appearances possess true differences of value is accepted by common-sense and by science, and we see no philosophical reason for finding fault with it; if any one likes to add that this "is because the Absolute itself is positively present in all appearance,"[2] that seems to us (when not interpreted as contradicting what has just been said) a perfectly harmless 'soporific' way of stating the same fact over again. It involves, too, the corollary that "the more we know of anything, the more in one way is Reality present within us". We may describe the fact in any way we please, but the

[1] *Appearance and Reality*, p. 3.

[2] *Ib.*, p. 551.

fact itself remains that we distinguish between (what seem at a given time) true appearances and false ones, and that in that distinction the function of judgment consists. On the other hand, instead of saying that "Reality is our criterion . . . of real and unreal"[1] it seems truer to say that the gradual filling out of our abstract distinction between real and unreal gives us all we know of Reality,—a knowledge progressive in character, and therefore conditional on the stage of progress. It is not through using names, but through using facts, to get behind facts, that we improve our first crude notion of the distinction between the real and the unreal. The abstract distinction itself we cannot destroy till our mental powers disappear in the night of death, or are lulled to sleep in the charming twilight of mystical speculation content with wordy substitutes for knowledge. As soon as we define the Real in such a sense that it includes the whole of that which appears unreal, we are either talking nonsense when we call this 'knowledge,' or else falling into that "shallow Pantheism" which we have just agreed with Mr. Bradley to discard, and which is one of the two errors against which his "pages may be called one sustained polemic". Our desire is that this polemic should be in future even more consistently sustained.

The chief question on which appeal is here made to the reader, is whether Mr. Bradley's indiscriminate attack upon scepticism is justified; whether an assertor is to be allowed to profess knowledge, and then to run away from the question what the value of his professed knowledge is, under cover of a general theory that 'scepticism' is necessarily suicidal. It is only suicidal when it *ceases* to be sceptical,—when it tries to play the "game" of assertive theory, and so breaks the rules under which the game is played. No human being can force you to play that game, nor make you submit to those rules while you decline to play it. Nor can any one alter the facts of the case by reiterating, with any amount of violence or verbal ingenuity, his disbelief in your disclaimer, —a disbelief which is barely excusable even when it is most sincere. What deceives him is doubtless the fact that none of us can remain sceptics always,—a fact which we admit quite freely. We may even go further, and admit the possibility that at no (appreciable) moment is any one in a purely sceptical frame of mind. But how does this affect the question? It merely allows an irrelevant *tu quoque* to be made: "You doubt my assertion, but are your own

[1] *Appearance and Reality*, p. 552.

assertions indisputable?". The answer is: "I do not say they are, I am not at present concerned with the personal question, which of us knows most about things in general; my beliefs can, if you like, be examined afterwards. Meanwhile the question is, whether a particular assertion of yours has any meaning. Don't let us shift that question until we have got an answer."

There is no way of escaping the genuine sceptical attack made by any one who is determined not to be led away by personalities or side-issues. Of existing attempts to escape, one of the most ingenious is perhaps that which we have here discussed,—the assumption that a self-contradictory sentence is false, and that a tautology can be true. Only assertion can be false or true, and neither of these kinds of sentence expresses an assertion. The excuse, such as it is, for the false assumption lies probably in the fact that *assertions* (when single) must from their nature, be either false or true; but this is not the case with the actual sentences which profess to make assertions. Some of these evidently express complex assertions, and so say 'yes' and 'no' at once; others appear to be asserting until we inquire exactly what they mean, and then we find their meaning limited away till "you have but one idea" (p. 514). When this point is reached, the meaning vanishes, and we are left with a solemn declaration that Reality is Reality. Mr. Bradley, in one of his sceptical moods, finds a case (p. 117.) where "either the oracle is so confused that its signification is not discoverable, or, upon the other hand, if it can be pinned down to any definite statement, then that statement will be false". That is exactly the complaint we bring against him. When his doctrine is pinned down to any definite statement, it does not seem to satisfy its author's critical mind; and that is the reason, we suspect, that he is led faithfully to keep its meaning undiscovered. The sceptic also is led in the same direction, by the same difficulty,—only he describes the result in a different way.

IV.—DEFINITION AND PROBLEMS OF CONSCIOUSNESS.

By A. Bain.

The process of Definition may be supposed by this time to have been exhaustively handled. This is so far true in theory, although derelictions in practice are frequent enough. In Reid's preliminary chapter to his first Essay on the Intellectual Powers, the nature of definition is stated in accordance with the usage of logicians; while yet he is convicted by Hamilton of confounding *verbal* and *real* definition. The following note (p. 220) is appended by Hamilton to his remark that individuals cannot be defined. "It is well said by the old logicians, *Omnis intuitiva notitia est definitio;*—that is, *a view of the thing itself is its best definition.* And this is true, both of the objects of sense, and of the objects of self-consciousness." Which of the old logicians originated this formula I cannot say; I have never seen it quoted in any other place. Hamilton's rendering, strictly interpreted, gives it a somewhat limited scope. He would seem to mean by it the actual presentation to sense of the thing to be defined; an interpretation, however, incompatible with his including the objects of self-consciousness: these, it is well known, cannot be shown except in a roundabout, indirect fashion.

It is now generally understood that definition is inapplicable to ultimate notions; a limitation, however, not observed hitherto by our dictionary makers. A further limitation is the case of notions in their nature, composite or derivative, but not explicable by means of their components. Thus Life, Death, Health, Disease, Combustion cannot be defined except by reference to concrete examples known to those addressed. Considering, then, definition in its wider and vaguer meaning of rendering intelligible truths conveyed by language,—as, in fact, an instrument of popular explanation rather than a process of science,—its scope might be assigned under the operation of bringing about an agreement among different persons as to the thing denoted by a given name. If, from any circumstances, people in general conceive precisely alike what is intended by the use of a given word, that word is defined for the purposes of mutual understanding, and for the explication of any complex meanings wherein it plays a part. That there are many such names, is shown by

the possibility of addressing intelligent discourse to large masses of mankind. No doubt, in technical and abstruse subjects, names are used belonging to the ordinary vocabulary of life, but with certain special restrictions, which have to be previously comprehended by the listeners to instruction in those subjects. Indeed, in every department of knowledge that has been reduced to scientific form, it is necessary to prepare an introduction, in order that the names employed may be freed from any indistinctness contracted in popular usage. The expositor of a science gladly avails himself of all such names as have no ambiguity in themselves, that is, are understood, in exactly the same way, by all the persons that have to be addressed. Such words would be the suitable medium of explication of difficult and abstruse terms that otherwise are not clearly or unambiguously interpreted.

The foregoing observations are more or less applicable to the entire vocabulary of Mind as employed in Psychology. A certain number of terms belonging to that vocabulary are self-explaining and need no definition; the sole and sufficient reason being that they refer to facts or phenomena so familiar, and so little ambiguous, that we are all at one as to their meaning. They become therefore the stepping stones to the definition or explanation of the other class of terms, still more numerous—those expressing important generalities of high range, and more or less abstruse signification, for which all the resources of methodical definition are requisite. We shall exemplify both kinds, after stating the exact drift of the present article, which is to be occupied with the consideration of the leading term "Consciousness".

For many purposes, and on numerous occasions, this word is remarkably free from ambiguity, as well as being intelligible to ordinary understandings. It, however, becomes involved in a number of subtle and difficult problems; and thereby takes on applications not so easy to unravel. Its import is so wide, that it seems to include in its grasp the whole of our mental life; being a sort of generic word under which our various mental functions are so many species. Such being the case, we might readily suppose that all the great psychological issues are bound up with it. Yet great though its scope may be, there are good reasons for not making it the central term of all Psychology; as will become apparent in the course of our examination of its sphere. We propose to show that there are certain definite issues better connected with the name than with any other name;

while we shall have occasion to allude to certain problems more properly and advantageously associated with a different selection from the vocabulary.

Let me now briefly exemplify the two classes of terms formerly alluded to, as entering into the vocabulary of mind. Among those of the first class—universally understood in the same sense—the foremost to be quoted is the all-important couple, Pleasure and Pain. Assuming that we are so far observant of what goes on in our introspective consciousness as to be aware that we are at times pleased, and at other times pained, we find ourselves in agreement with one another upon these facts of our experience. We do not confound a pleasure with a pain, nor with a state of mind that is neither the one nor the other. The properties of the Object world, with all their explicitness, are scarcely more clear or less mistakable than these two leading properties of our truly mental life; consequently by the use of those terms, which need no definition in themselves, we can introduce exactness of meaning into the less certain terminology of the mind.

Another unambiguous fact of the Subject world is the process known as Discrimination, Sense of Difference, Feeling of Difference, Consciousness of Difference; all which designations belong to our strictly mental operations, and express something that cannot be mistaken or confounded with anything else,—say Pleasure and Pain. This too is above the necessity of being defined; it is intuitively known and is so specific and clear that it means the same to all intelligent beings.

The operation named Feeling of Resemblance, Similarity, Recognition, Sense of Agreement, is also a perfectly definite fact of our mental nature, which we do not confound with anything else. When we say that two things are to our apprehension similar, we indicate a truly mental act, and our hearers accept the statement precisely as we intend that they should.

Another name that represents a well understood process, which we take note of from early years, and find ourselves at one with our neighbours upon, is the process called Memory, Remembering, Retaining in the Mind. This is a process truly mental, highly distinct and characteristic, and serving to cover a very large part of our mental being. Our language provides numerous equivalents or synonyms for this grand function, and most of them are intelligible and unequivocable. Such are, Learning, Forgetting, Acquiring, Getting by Heart, Lessons, Drill, and so on. The use of any one of those names conveys to all hearers a familiar

fact of their experience; they need no dictionary definition, they carry within themselves a reference to each one's familiar experience, and are understood accordingly.

We are not done with our enumeration of terms, belonging to the Subject world, so completely unambiguous as to be above the possibility of being misunderstood. In the names Action, Activity, with the opposites Passive or Passivity we have also a basis of common agreement in stating mental facts. Action is no doubt applicable to the powers of the material world, but it is also a term for the mental world, which the other use does not render obscure.

We shall presently see the importance of another familiar and unmistakable couple of terms, belonging to our mental as well as bodily life—the couple Sleeping and Waking. Upon the meanings of those terms, there can be no dispute.

Such being a few of the chief members of our stepping stone terminology, it is necessary merely to mention, by way of illustrative contrast, some examples of the other class:—Consciousness, Feeling, Emotion, Will, Intellect, Thought, Presentation, Perception, Idea, Ideal, Cognition, Belief, &c.

Our present handling is intended to bear on the name "Consciousness". In fully considering its definition, we shall adduce the problems most suitably attached thereto; the attachment being justified by the fact that they benefit by its being correctly defined. There are such problems; while others could be cited that would not be affected by the same means, however plausible might be the connexion.

In arriving at the desired definition by the instrumentality above described, we may lead off with the couple last cited in the enumeration of contributing terms, namely, Sleep and Waking. While Sleep, unaccompanied with dreams, is the abeyance of Consciousness, becoming awake is its resumption. The awakened consciousness may be very various in its degree and in its contents. It may be so feeble as to possess no specific quality in prominence; it may rise to every gradation of intensity; while its modes may be as various as the recognised operations of our mental being. The term is properly applicable under all these fluctuations. It gives no indication of the special mode of mental activity; it means only that the mind is alive and at work in some of its manifestations, and not in suspense or dormant. Reasons will have to be given for not subdividing and classifying our mental manifestations under the name as a genus; some other name or names being assignable as better suited for that purpose.

While sleep and waking constitute our first and best

approach to a common understanding as to the scope or meaning of consciousness, we may derive a further contribution from other occasions of producing the unconscious state. Such are brain-concussion, anæsthetics, temporary prostration or exhaustion of the powers, cerebral paralysis, —all which repeat the effect of sleep, and render the meaning of consciousness intelligible and familiar from its privation. Up to this point, we may safely affirm that there is no term in the psychological vocabulary better agreed upon than Consciousness, all-comprehensive although it may seem to be.

It is easy to quote other terms that carry consciousness with them ; in other words, that specify conditions which, when occurring, suppose the mind to be awake, and not in any form of suspense. Most prominent of these is the couple—Pleasure and Pain, so distinguished for their universal intelligibility. True, there are certain subtleties, in the way of theory, that to a certain extent obscure the limits of their signification ; yet, in point of fact, such subtleties apart, the ordinary understanding has no sort of difficulty as to their meaning. There may be processes truly mental that carry but little consciousness with them, that may accomplish effective thought-transitions on the verge of unconsciousness, even if not entirely immersed in that condition ; but pleasure is not pleasure, if not conscious ; the measure of the pleasure is the measure of the consciousness : a greater pleasure or a greater pain means a greater consciousness. In the region of Will, the proportion does not apply in the same unqualified form ; it applies to the incidence of motive, in other words, to Feeling, but not necessarily or fully to the expenditure of energy in execution. The process named Habit, one of the well known and unambiguous mental terms, is the enemy of Consciousness, while, at the same time, leading to a mental result. The intellectual trains, in so far as Conscious, involve a certain energy or degree of Feeling or of Will ; they also become conscious according as Habit has not supervened to give them a mechanical or automatic flow.

'Attention' would be properly included among the terms that in ordinary speech give rise to no ambiguity. This happy immunity from doubt is somewhat interfered with by the employment of the term to designate mere conscious intensity, with or without voluntary prompting. Nevertheless, the degree of attention is a measure of the degree of consciousness ; total inattention would mean total unconsciousness with reference to some special solicitation for the time being.

The further consideration of the mode of defining Consciousness will be taken along with the critical problems to be adduced for elucidation.

The Object Consciousness.—That our recognition of the so-called external and extended world is a mode of consciousness is not denied. The question that has given rise to controversy relates to the meaning or import of what we are conscious of, and not as to the distinctness of mode, whereby this form of consciousness is put in contrast with the various modes designated under the generic name Subject. Our purpose at present does not involve any further reference to the well-known contrast of object properties and subject properties.

Truths of Consciousness.—This phrase has a meaning only when we add to the designation Consciousness something not implied in the mere notion of awakeness. That when we are awake, or conscious, we are really so, must be assumed as certain. We cannot be mistaken in that fact. Even the wide compass of mental derangement hardly includes the circumstance that any one under some form of conscious manifestation—pleasure, pain, will, thought—regards himself as in a state of profound slumber. It is only when further questions are raised, such as the intuitive knowledge of an absolute beyond the import of present consciousness, that there is any matter to work upon. When such questions are really agitated, they should be kept apart from the term Consciousness and related to some more special designation. The supposed certainty of consciousness attaches only to the limited sphere of our strict definition, beyond which certainty must be sought in other ways.

Consciousness in contrast to Mind.—While Mind must be understood to cover the entire storage of mental impressions including the position that they hold in the cerebral organisation when absolutely inactive, or exercising no mental agency, the term Consciousness refers purely to the moments of mental wakefulness or mental efficiency for present ends. All the permanent products stored up in the mental organisation have found their way there through a period of Consciousness; they serve their function in the mental economy mainly during a return to full consciousness. Consciousness thus resembles the scenery of a theatre actually on the stage, at any one moment; which scenery is a mere selection from the stores in reserve for the many pieces that have been, or may be, performed.

Our next head also contributes to the elucidation of this great contrast.

The Conscious Area.—This designation expresses a feature of consciousness vital in itself and ramifying into many various issues. Taken at any one instant of time, the content of consciousness has a very small compass indeed.

The conscious area is known to be limited by the unity of the executive ; and its limitation is expressed by the common saying that we attend to only one thing at a time. The qualifications of this dictum are of first rate importance in Psychology, and are given in connexion with the several senses, more especially those of extension—Sight and Touch. Passing by this important consideration, what we have to say of consciousness is that every conscious impulse leaves a stamp behind it, after it has ceased or after the agency is withdrawn. Upon this stamp, or permanent hold, depends in the long run our entire compass of Memory or Retention. Its operation is far-reaching ; but what concerns more directly the play of consciousness is the ready and immediate recurrence of what has just been in consciousness for the temporary constructiveness of the Mind. It is like the different pieces of clay thrown off by the potter, and momentarily laid aside, till a sufficient number are prepared for a special design. Along with the consciousness of any one instant, we have a number of recent states just out of consciousness, and constantly tending to recur in a more or less irregular fashion ; the irregularity being only apparent, and the circumstances governing the recurrence being duly assignable.

The narrowness of the conscious area is the peculiar limitation of the human powers, as contrasted with our notion of Omniscience. The stringency of the limitation is overcome by a certain power of rapid transition, by which constructive results can be gained, involving several successive phases of conscious representation. Owing to this circumstance alone, we have a difficulty in saying how much is contained in an absolutely instantaneous shock of Consciousness.

The great practical question, as now hinted at, consists in setting forth, in the most appropriate language, the motives or rousing influences of consciousness, and the sources of preferential attention or concentration amid competing elements. It is here that we have to decide on the respective merits of the proposed terminology for conscious action, with which is implicated the further question of the intercausation of the three great components of the Subject Mind. Which of all the three fundamentals of Mind is to be considered as the initial motive in making us mentally alive? Do they each operate in their turn as primary causes?

Consciousness as essential to Memory.—It is certainly true in the main that, in order to make permanent acquisitions, or to associate trains of ideas, such trains must, in the first instance, have been started in consciousness. It is a recognised condition of retentiveness, that the things retained must have had the full occupation of our conscious moments, for a longer or shorter time, and that the more intense the conscious flame, the more rapid is the adhesive growth. Of this as a general principle there can be no sort of doubt; it being the basis and ruling circumstance of our effective education. It is somewhat qualified by the physical state of the nerves at the time, which may chance to be more favourable to excitement than to the permanent growth of the associating links. This, however, does not affect the main thesis. The seeming exceptions are of a different kind. There are undoubted appearances in favour of the operation of adhesive growth outside the conscious area. In stating as a fact of infant growth, that the reflex and spontaneous activities are confirmed by repetition, we assume an extra-conscious region of our education. It is no doubt the case that, in this region, the consecutive acts are already established, and merely want greater fixity. But whether two movements originally disjoined could be in the first instance brought together out of consciousness is a different matter: there is nothing to lead us to suppose that this is in any way practicable. When we have to deal with impressions of the various senses, and with their aggregation, into groups and trains, we must pronounce without scruple that such groupings require to begin in consciousness, and have their pace determined by the conscious intensity.

Here, then, is one of the problems decisively implicated with the name Consciousness and not so well placed under any other name: whether or not there be important mental modifications arising in the intervals of our consciousness, as during sleep, or momentary distraction from the matter in question.

Immediate Physical Conditions of Consciousness.—The vast problem of the connexion of Mind and Body, the depths and ramifications of which pass beyond our most sanguine hopes of future research, assumes a more compassable form, when we restrict the inquiry to consciousness proper as we have defined it. The transitions from sleep to wakefulness, from feeble to intense consciousness, although not understood in their whole extent, are yet allied with a variety of palpable and explicable physical changes that are clearly statable and of the greatest practical moment. From such

alliances of the mental and the physical, we draw very decisive inferences regarding the gr·at question of the connexion of mind and body in their entire compass. The accompaniment of movements of Expression with states of Feeling is known to hold in measured concomitance, and is a key to the mode of nervous actuation that consciousness probably requires.

Reflex Actions and Consciousness ; Animal Automatism.— In the usual classification of Reflex actions, we begin with those where consciousness has no part, as breathing, and end in those where consciousness participates, and is to a certain extent regulative, but is only partly essential, as in withdrawing the limb from a hot contact. For this situation, the terms 'unconscious' and 'conscious' are strictly and properly applicable; and the reference to them contributes to fix the characteristic meaning of the words. It further illustrates the connexion of consciousness with our truly voluntary activities in their full play. Actions properly voluntary lose their character, under two extremes or gradations—on the one hand, their shading into the Reflex, and on the other hand, their passing into the Habitual. In both cases, they part to a corresponding degree with their conscious character, as is seen by their giving room for other occupants of the conscious area.

The problem of Consciousness is stated in a new aspect when we put the question—Are animals automatons? It is supposable that the nervous system, by its complications and adjustments, could perform all the acts that animals are capable of, without consciousness, as well as with. The obvious difficulty is that in our own experience we have two classes of mental activities,—one with and the other without consciousness ; and that animals can reach to the higher as well as the lower kind. With us, consciousness is a requisite of acquired powers ; by it we are learners from experience, and not mere machines performing an ingrained and routine part. The lower animals too learn from experience in the same way, and it would be a gratuitous departure from fair analogy, if we were to suppose that their acquired powers are unconnected with consciousness. With us, intensified consciousness hastens permanent impressions and the education resulting therefrom. The same thing is presumed and acted upon in our artificial training of animals. Thus it is, that we seem shut in to attribute to them the same consciousness as we find in ourselves, with modifications that can be partly conceived by referring to the various gradations of our own conscious experience. We see in the dog the

same fitful changes of attention as in ourselves, the same lapses of consciousness of purpose, with the same facility of recovery under the conditions known to ourselves. If we hesitated to apply to animals the distinction now supposed, we should have to adopt an entirely new variety of descriptive language for their mental operations.

The arguments for animal consciousness may be summarised in the following heads: (1) The cerebral structure so closely resembling our own, in the higher species more particularly, and accompanied with no serious gap until we reach the invertebrates, with whom the plan of cerebrum is considerably modified. (2) The manifested expression under exciting agencies of the class that in human beings are accompanied with pleasure or pain. (3) The effect of the same agencies upon movements of pursuit or avoidance, that is to say, such voluntary activity as they would give birth to in humanity. The cumulative force of these arguments has always been accounted a strong case in favour of animal consciousness, as opposed to a mechanism typified by reflex activity, notwithstanding any supposable degree of complication.

It seems to me, however, that stronger than any of these arguments is the consideration, above adverted to, of the absolute necessity of consciousness in order to acquisition. No fact of our constitution is more irrefragable than this; to refuse to apply it to creatures susceptible of education is gratuitous and unwarrantable. Instead of lightening our difficulties with regard to Animal Psychology, it aggravates them in an extraordinary degree. As an argument, the fact now given is the crown of the three foregoing analogical proofs, and outstrips them all in cogency.

It is often a matter of speculative curiosity, what is the nature and amount of the consciousness in any given member of the animal tribe. Even human beings, in endeavouring to penetrate each other's consciousness, are liable to a certain amount of error, being never entirely sure that the same symptoms mean precisely the same thing—the same conscious mode. Such, and no other, is our fundamental difficulty with the animals. Employing the four classes of indications we have assigned we are entitled to infer both the mode and the intensity of the conscious state in any one case. Probably the most effective measure of conscious endowment is what we have chiefly laid stress upon, educability. Vehemence of expression and of voluntary pursuit or avoidance are manifested in the lowest as well as in the highest orders—in an insect or a fish, as well as in a mam-

mal. The meaning of these symptoms taken apart is very uncertain and misleading. They accompany the lowest brains no less than the highest. It must, however, make a very material difference whether, or to what extent, the individual possesses the great foundations of intelligence—Discrimination and Educability. The kind, if not the intensity, of consciousness must rise nearer and nearer the human type, according as these functions predominate. With all our own varied experience of conscious intensity or wakefulness, we may be unable to fathom the precise nature and degree of the lowest invertebrates possessing sensibility and responding, both by expression and by movement, to sensible agents. This of course effectually obscures the question as to the precise point of animal development at which consciousness is first manifested. We may fairly presume its presence when expressive gestures and voluntary pursuit are coupled with the smallest assignable portion of educability. As a problem of evolution or development, the genesis of consciousness is apparently beyond our means of resolution. It ranks with the question as to the relative priority to be assigned to movements of Expression and Volition: which again is not far removed from another insoluble issue,—the source or commencement of our Reflex adjustments,—whether they are the confirmation of experienced or acquired actions; in which case they would pre-suppose a stage of consciousness, instead of being in advance of it.

Consciousness and Self-Consciousness.—The term "Self-Consciousness" opens up a very wide discussion, and is implicated in some of our gravest controversies. The name Consciousness standing single, and viewed as in the foregoing survey, is intelligible and free from ambiguity. The addition of the prefix "Self" entirely changes the situation. Self, taken apart, has diverse meanings; the same diversity must needs enter into any compound wherein it enters.

When Consciousness is coupled with a qualification, it is commonly to limit its generality or comprehensiveness to some special content: in our waking moments we have ordinarily a variety of things present or accessible to our view, while only one or a small number can be in the consciousness at the same instant. There may be a convenience in specifying which of the various solicitations of any moment is attended to, and which neglected; of the one we may be said to be conscious, and of the others unconscious. So long as these alternatives are of a simple, unambiguous character, the coupling with the word Consciousness does not detract from the intelligibility of the language. A man

in a momentarily absent fit is unconscious of things before his eyes or within the compass of his hearing. He may even be unconscious of physical pains. Still greater complications might be supposed without detracting from easy understanding of the names consciousness or unconsciousness, so qualified. Another example of the admissible qualification of consciousness, by referring it to a special topic, is the somewhat rhetorical phrase *mens conscia recti*. There is nothing misleading in this use of the name, although a larger word would be preferable. The rectitude of a person's intentions and demeanour is not adequately cognised in a single instant of consciousness ; it needs the comparison of a good many such instants, and hence the larger term "knowledge" would be preferable. To speak of consciousness as the test or evidence of our intuitions is open to a similar criticism. We may have intuitions, and they may possess any amount of validity ; yet such validity cannot be attested by any single moment of consciousness ; and consciousness cannot carry memory with it without exceeding its legitimate scope.

When, as a content of consciousness, we introduce the term "Self," the complication becomes very great indeed. In order to a clearance, we must indicate at once which of the acceptations of this term we have in view. Common speech makes often familiar with the phrase "self-conscious," the meaning of self being then our own importance, distinction, or merits, as regarded by others, and dwelt upon at times by ourselves. A vain person, in the moments when the feeling is indulged, and especially when attracting the attention of others, is said to be self-conscious. Or, the regard to self may take the form of morbid humiliation, in consequence of some act or circumstance that makes a bad impression on spectators, and is unfavourably judged by the individual. These two extreme forms represent the mode of Self that in current talk is perhaps most usually coupled with the name Consciousness. The more comprehensive meaning of Self as including all our life interests or collective valuables, is better denoted by the conjunction "Self-interest".

The word Consciousness, as admitted, covers the Object world, as well as the Subject. The opposition of the two modes is so marked that some qualifying designation is needed when one is mentioned to the exclusion of the other. Thus, when we purposely omit the object reference, we may signify the remainder by *self*-consciousness. (I think it unnecessary to refer to the old use of Consciousness for Introspection, or the source of our knowledge of the

Mind, corresponding to Observation for the Object world.) But, in the face of so many different acceptations of Self, this employment of the term is inadequate and unsatisfactory, although not altogether devoid of propriety. It is sometimes said that our feelings, cognitions, and volitions are all referable to self-consciousness, which is only a way of saying that they are the constituents of the subject mind. To use the name consciousness in this way is to overstep its province as being the expression of the passing phases of our mental being, and to confound it with the totality of Mind, which is the multiple of any such single phase a hundred thousand times over.

Besides the two modes of employing the coupling in question, I am not aware of any equally common application. It is up to this point so far devoid of ambiguity as to be serviceable either in common life or in psychological speculation.

When 'Self-consciousness' is given as the highest fact we know and as our "best key to the ultimate nature of existence as a whole," there is an entirely new departure in the widening of its significance. Neither of the two constituents of the compound would seem to be capable of sustaining this momentous issue. The utmost range or compass of self is the totality of our own being—mind and body; of that self, we may be said to be conscious in the sense of knowledge—a much more suitable term for such an all-comprehending aggregate. Suppose then that we use 'Self-knowledge' for the purpose of solving the ultimate nature of existence, what does its employment amount to? Simply this, that humanity taken as a whole—mind and body—is so fair a type of the creative and ruling power of the universe as to render à not insufficient or unsatisfactory explanation of the origination of the world, as we find it. In short, it would merely reiterate the long prevalent anthropomorphic explanation of nature. To prefer the couple "self-consciousness" is to detract from the efficiency of the statement, in so far as Consciousness, in its limitation to what is present and passing, is a narrower term than Knowledge, which covers the entire permanent storage or accumulation of all that has ever been in consciousness.

The "Self" of the combination in question is perhaps meant to be limited to Mind alone; that is, mind as a pure or abstract existence, distinct from the body although inseparable from it. The body, in fact, is an incumbrance in this speculation; having nothing corresponding in the supposed productive agency of the world: the dynamic efficiency

of mind is postulated without the physical apparatus in whose absence we have no experience of Mind as a genuine entity.

In the great controversy as to the sources of our belief in Reality as against Appearance, I do not see that the term we have been considering is in any way helpful. Indeed, if I rightly apprehend the present stage of that particular controversy, it is not often made use of as a leading term. If so employed, there ought to be a clear understanding between the combatants respecting its precise definition; or rather, I should say, it ought to be substituted by some other phraseology less thoroughly steeped in ambiguity.

Without pursuing further our main thesis, the definition and problems of consciousness, it is enough to wind up with the observation, which is justified by the closing references, that the critical examination of the compound "self-consciousness" readily gets beyond the pale of psychological adjustment.

V.—DISCONTINUITY IN EVOLUTION.

By Francis Galton.

Students of the laws of variation need not be disheartened by the apparent impossibility of learning the details by which particular variations are occasioned. We may take it for granted that the offspring are as little likely to be identical with their parents as it is for a colony to strictly resemble its parent state. The forms of living beings are presumably governed by laws as rigid as those of crystallisation, but the complexity of circumstance under which each germinal element is placed, and the multitude of interacting elements, make the effect of the forces that shape each living creature incomparably more various than those that shape the crystal. It is therefore not to be expected that offspring should exactly resemble their parents; it would, on the contrary, be very wonderful if they did so. The difficulty of being unable to account distinctly for the cause of any particular variation, may then be set aside by those who study the degree and the character of variation generally, as well as the circumstances under which a new variation may have become an established breed.

The amount of information collected by Darwin on these points in his *Plants and Animals under Domestication* is marvellously great; but as Mr. Bateson justly insists in his recent work,[1] to which attention will be drawn later on, there has as yet been no serious attempt on a large scale to add to his array of facts. It is time indeed to do so, and then to discuss them in the light of the larger knowledge and with the wider views which we have gained through Darwin's unflagging industry, and his fertile and powerful brain.

Use will be made in the following remarks of the two words *race* and *type*, or of some expression dependent on the latter, such as *typical centre*; consequently the sense in which they will be used must be defined. A race is taken to mean a large body of more or less similar and related individuals, who are separated from analogous bodies by the rarity of transitional forms, and not by any sharp boundary. This characteristic peculiarity of a race may be likened to

[1] *Materials for the Study of Variation, treated with especial regard to discontinuity in the origin of species.* Macmillan, 1894. Pp. xv., 598.

that of nebulæ, which are conspicuous through the brightness of their cores, and fade away into nothingness at a short distance from them, and therefore have no outline. The type, or typical centre of a race, corresponds in the above metaphor to the innermost core of the nebula. It is to be defined as an ideal form, whose qualities are those of the average of all the members of the race, or, what statistically speaking is the same thing, the average of any large and hap-hazard collection of them. Every race contains numerous individuals who differ very slightly and perhaps inappreciably from the central type, but it is scarcely conceivable that any individual should exist who is a mathematically exact representation of that purely ideal form. The number of individuals who deviate more or less markedly from the central type diminishes rapidly as the divergence increases, according to some law peculiar to each race and quality, but which approximates, in some instances very closely, to the theoretical law of frequency of error. The law in all cases must involve a constant, whose function is to express the degree in which the system is spread out, while preserving its relative internal proportions as defined by the law. The value of the constant is given by the distance, D, from the typical centre, within which a certain proportion, say one-half, of all the individuals, or of any large and hap-hazard collection of them, are found to be comprised. Knowing position of the typical centre, the law of frequency, and the constant applicable to the character in question, the race is defined so far as that characteristic is concerned, for we can easily calculate from those materials the number of individuals who are comprised within the distances 2 D, 3 D, &c., respectively from the core. Thus we see that the idea to be attached to the word race has three distinct and definite elements, any of which may be separately discussed in respect to any of its characteristics. They are (1) the typical centre, (2) the law of distribution about it, (3) the constant involved in that law.

The first of these chiefly interests us now; for we have to consider the ways in which the position of the typical centre of a race may become changed. At a certain period its position was A; at a second and long subsequent period it was B; by what steps did A change into B? Was it necessarily through the accumulation of a long succession of alterations, individually so small as to be almost imperceptible, though large and conspicuous in the aggregate, or could there ever have been abrupt changes?

A specious and it may be a very misleading argument in

favour of the steps being always small, is derived from the observed fact that specimens can usually be found ranging between A and B, each differing from its predecessor in only a slight degree. The inference is that the course of evolution followed those steps. But there is nothing to show that the specimens were typical forms of the race at the time when they were alive. Two that approach each other closely in appearance may be fundamentally different in nature, the one being a variant of A in the direction of B, and the other a variant of B in the direction of A. Though alike outwardly they differ inwardly, as shown by their offspring, which will 'regress' towards the A and B types respectively. The offspring of the variant of A do not deviate *on the average* so widely from the typical centre of A as their parents did. Some may deviate more, but the majority will deviate less. Similarly as regards the variant of B. So, although the pairs of parents may be outwardly alike, the successive generations of their offspring will differ increasingly, and their separation into representatives of A and B respectively will very soon become obvious. There can be no doubt as to the reality of regression. I have not only proved its existence in certain cases and measured its amount, but have shown that no race could continue constant in its characteristics unless regression existed. And, again, the observed and the theoretical details of the process were found to strictly concur. Therefore, although a museum may contain a full series of intermediate forms between A and B it does not in the least follow that the course of development passed through those forms.

The causes why the A and B races are such definite entities may be various. In the first place each race has a solidarity due to common ancestors and frequent interbreeding. Secondly, it may be thought by some, though not by myself, to have been pruned into permanent shape by the long-continued action of natural selection. But, in addition to these, I have for some years past maintained that a third cause exists more potent than the other two, and sufficient by itself to mould a race, namely that of definite positions of organic stability. The type A is stable, and so is the type B, but intermediate positions are less stable; therefore I conceive the position of maximum stability to be the essential as well as the most potent agent in forming a typical centre, from which the individuals of the race may diverge and towards which their offspring tend on the whole to regress.

Let us take some instances from Darwin's *Plants and Animals under Domestication* to serve as examples of what I call positions of organic stability. The Peacock, as he tells us, has hardly varied under domestication otherwise than being sometimes white or piebald, except in the following rare and curious particular, namely, the occasional appearance in England of the "japanned" or black-shouldered kind. It was considered by Mr. Sclater to be a distinct species, and named by him *Pavo nigripennis*. Its males differ conspicuously and in many respects from those of the common bird, while the females differ through being much paler. These japanned birds appear unexpectedly from eggs laid by the common kind, nevertheless they propagate their breed quite truly. Seven well-authenticated cases are given of their abrupt appearance in the broods of ordinary peafowl. In two of them, the black-shouldered kind, though it is a smaller and weaker bird, increased "to the extinction of the previously existing breed". Darwin concludes his remarks upon the large body of evidence that he adduces about them, by saying "these facts seem to me to indicate that the japanned peacock is a strongly marked variety or 'sport,' which tends at all times and in many places to reappear". As to the Peach, no less than six named and several unnamed varieties of the peach have suddenly produced several varieties of nectarine. The evidence of this is superabundant. There are in addition a few records of trees producing fruit which were individually half a pure peach and half a pure nectarine, or on which some of the fruit were pure peaches and the rest pure nectarines.

Many, if not most breeds, have had their origin in sports. A famous horticulturist, Vilmorin, quoted by Darwin, emphatically states that when any particular variation is desired, the first step is to get the plant to vary in any manner whatever, and to go on selecting the most variable individuals, even though they vary in the wrong direction; for the fixed character of the species being once broken, the desired variation will appear sooner or later. Horticulturists seem generally to agree with the view that the chief difficulty in producing new varieties is to break through the original form and colour of the species. There is nothing to be seen in the plant to show that the stability of its organisation is lessening; the fact is known only by its consequences.

Lastly, I will quote Darwin's important generalisation, that though the numerous animals and plants which have given rise to sports are known to have been separated from any common progenitor by a vast number of generations,

and though they have been reared under diversified conditions, the varieties they have severally yielded are closely analogous. In other words, the competing positions of organic stability are well defined and few in number.

Notwithstanding a multitude of striking cases of the above description collected by Darwin, the most marked impression left on his mind by the sum of all his investigations was the paramount effect of the accumulation of a succession of petty differences through the influence of natural selection. This is certainly the prevalent idea among his successors at the present day, with the corollary that the Evolution of races and species has always been an enormously protracted process. I have myself written many times during the last few years in an opposite sense to this, more especially in three works : *Natural Inheritance*, 1889, in *Finger Prints*, 1892, and in the preface to a reprint of *Hereditary Genius*, 1892, and will briefly recapitulate part of what was then more fully expressed. Mention was made in *Finger Prints* of the existence of certain definite forms, few in number, which appear again and again in the majority of men and women. They are the curious patterns formed by the papillary ridges on the bulbs of the fingers. It was shown on ample evidence that they are the most persistent of all the external characters that have yet been noted, and are consequently not unimportant in spite of their minute character. (We know nothing by observation about the persistence of any internal character, because it is not feasible to dissect a man in his boyhood, and a second or third time in his after life, whereas finger prints can be taken as often as is desired.) It was also shown that notwithstanding the early appearance of the patterns in fœtal life and their apparent importance, they are totally independent of any quality upon which either natural selection or marriage selection can be conceived to depend. For example, I find the same general run of patterns in English, Welsh, Jews, Basques, Hindoos, Negroes, men of culture, farm labourers, criminals, and idiots. I have failed to observe the slightest correlation between the patterns and any single personal quality whether physical or mental. They are therefore to be looked upon as purely local peculiarities, with a slight tendency towards transmission by inheritance. Yet notwithstanding their immunity from the influence of selection, they fall into three definite and widely different classes, each of which is a true race in the sense in which that word was defined, transitional forms between them being rare and the typical forms being frequent, while the frequency of devia-

tions from the several typical centres in those respects in which measurement could be applied, correspond approximately with the normal law of frequency. I therefore insisted that the continual appearance of these well-marked and very distinct patterns proved the reality of the alleged positions of organic stability, and that the latter were competent to mould races without any help whatever from the process of selection, whether natural or sexual.

A single fresh case shall be now introduced, merely for the purpose of varying the character of the evidence of sports, namely, that of Inaudi, the mental arithmetician. He has been tested very thoroughly in France, and been the subject of an extremely interesting report. I also had the pleasure of seeing him in England, and of testing his powers quietly in the company of a few friends. It appears that he had a passion for performing simple sums when his condition was no higher than that of an illiterate Piedmontese peasant boy. He gained *sous* by showing his arithmetical powers at *cabarets* before he had learnt even to read, an accomplishment which was deferred until opportunity for acquiring it arose in his youth (he being still a young man). So he had not even the advantage afforded by a visual memory of picturing a black-board in his imagination, upon which the sums could be mentally seen. I think that this limitation of his mental equipment, which makes his achievements still more extraordinary, was sufficiently proved by the following experiment. Two rows of figures, one of 18 and the other of 17 in number, were read out to him, and he was to subtract the latter from the former. (I have not access at this moment to my notes, and writing from memory it is possible that in the fear of overestimating I may have a little understated the number of figures.) He repeated them in order to make sure that he rightly understood what had been said, then he subtracted the one row from the other, mentally. After a little conversation and testing in other ways, we returned to the same figures, and he was asked to recall and repeat the whole sum backwards; this he did correctly but slowly. Then, after another interlude of conversation, he was requested to repeat the figures in columns. This also he did correctly, but much more slowly than before. The conclusion was that he did *not* see the figures mentally as written, say, in chalk on a black-board. Had he done so, it would have been equally easy to him to read them off in any order we asked for, whether forwards, backwards, or in columns. His parents had no such power; his own remarkable gifts were therefore a

sport, and let it be remembered that mental sports of this kind, however large, are none the less heritable. As we are speaking of the faculty of mental arithmetic, it is better to keep to it for illustration; so I will adduce in evidence of its hereditary persistence the well-known case of Mr. Bidder, the "calculating boy" of a past generation, whose son, the present Q.C., and many of whose grandchildren exhibit strong powers of the same kind.

What has been said about this particular gift of mental arithmetic is equally applicable to every other faculty, such as music and scholarship. Can anybody believe that the modern appearance in a family of a great musician is other than a sport? Is it conceivable that Sebastian Bach derived his musical gifts by atavism, and therefore ultimately from an anthropoid ape? The question is too absurd to answer.

The phrase of organic stability must not as yet be taken to connote more than it actually denotes. Thus far it has been merely used to express the well-substantiated fact that a race does sometimes abruptly produce individuals who have a distinctly different typical centre, in the sense in which those words were defined. The inference or connotation is that no variation can establish itself unless it be of the character of a sport, that is, by a leap from one position of organic stability to another, or as we may phrase it, through '*transilient*' variation. If there be no such leap the variation is, so to speak, a mere bend or divergence from the parent form, towards which the offspring in the next generation will tend to regress; it may therefore be called a '*divergent*' variation. Thus the unqualified word variation comprises and confuses what I maintain to be two fundamentally different processes, that of transilience and that of divergence, and its use destroys the possibility of reasoning correctly in not a few important matters. The interval leapt over in a transilience may be at least as large as it has been in any hitherto observed instance, and it may be smaller in any less degree. Still, whether it has been large or small, a leap has taken place into a new position of stability. I am unable to conceive the possibility of evolutionary progress except by transiliences, for, if they were merely divergences, each subsequent generation would tend to regress backwards towards the typical centre, and the advance that had been made would be temporary and could not be maintained. But what is transilience and what is divergence, physiologically speaking? As we know nothing about the arrangements and movements of the ultimate living units of the germs we can only answer by analogies. The exact answer

would require a knowledge of the cause of what, in the nomenclature of Weismann, would be called the architecture of the *id*, and of which he assumes the existence, but does not attempt to account for. We know that the germ contains the seeds of a vast number of ancestral potentialities, only a very few of which can be simultaneously developed, being to a great extent mutually exclusive. It may therefore be inferred with confidence, that organisation is reached through a succession of struggles for place among competing elements, the successful ones owing their success through position, through superiority in vigour, and so on; while these owe their existence in part to a host of what, in popular language, are called accidental causes. However vague such an explanation may be, it is far from being an inefficient one, for it defines the general character of a process though avowedly incapable of dealing with the details. It applies, moreover, to every theory of heredity which is of a "*particulate*" character;—that is to say, wherever the theory is based on the supposition of a vast number of partly independent biological particles, whose mutual attractions or repulsions, as they successively ripen, result in organisation. Theories that have this general idea for their foundation seem to be the only ones that are in any way defensible, and to all of these the idea of positions of organic stability is applicable.

The analogies that I have published in *Natural Inheritance*, in which gatherings of all kinds fall into positions of stability, are striking; but I cannot compress them further and there is not space for their recapitulation. Suffice it to say that they abound, and that the lists I have given of them might be almost indefinitely extended.

These briefly are the views that I have put forward in various publications during recent years, but all along I seemed to have spoken to empty air. I never heard nor have I read any criticism of them, and I believed they had passed unheeded and that my opinion was in a minority of one. It was, therefore, with the utmost pleasure that I read Mr. Bateson's work bearing the happy phrase in its title of 'discontinuous variation,' and rich with many original remarks and not a few trenchant expressions. I do not profess to review the book here; that should be done by others in a cooler and more cautious spirit, perhaps, than I can command, and with vastly more zoological knowledge than I possess, but I will briefly touch on a few salient points.

Mr. Bateson puts the problem clearly as follows: Evolution implies transition from one form to another by means

of a progressive series. If the whole series were before us should we find that this transition had been brought about by very minute and insensible differences between successive terms in the series, or should we find distinct and palpable gaps? In proportion as the transition from term to term is minimal and imperceptible, we may speak of the series as being *continuous*, while in proportion as there appear lacunæ, filled by no transitional form, we may describe it as *discontinuous*.

He shows with force the extreme difficulty of solving the problem by the methods ordinarily relied on. First, he says that the *embryological* evidence of evolution is little more than suggestive. Allowance has to be made when using it "for the omission of stages, for the intercalation of stages, for degeneration, for the presence of organs specially connected with larval life or embryonic life, for the interference of yolk and so forth. But what this allowance should be and in what cases it should be made has never been determined. More than this: closely allied forms often develop on totally different plans, . . . for example, . . . the germinal layers of the Guinea-pig when compared with those of the Rabbit are completely inverted, and so on" (p. 9).

Secondly, he shows with no less force the hopelessness of arriving at sure data, from the facts of *Adaptation*. He explains that large groups of common phenomena exist, for the use of which no one has yet made even a plausible surmise—"the study of adaptation ceases to help us at the exact point at which help is most needed. Darwin and many others have pointed out that the characters which visibly differentiate species are not, as a rule, capital facts in the constitution of vital organs, but more often they are just those features which seem to us useless and trivial. . . . These differences are often complex and are strikingly constant, but their utility is in almost every case problematical. . . . In the early days of the theory of natural selection, it was hoped that with searching the direct utility of such small differences would be found, but time has been running now and the hope is unfulfilled" (p. 11). He shows that the cardinal objection to the method is that, while it is generally possible to suggest *some* way by which any given structure may be of use to the animal who possesses it, it is by no means easy to prove that the structure is *on the whole* useful or harmful. A quantitative estimate of the value of each peculiarity is wanted, which, in the face of the complexity of the relations between an animal and its surroundings, is scarcely possible to be obtained in any single case.

Then he proceeds to show that the study of *Variation* gives us the only apparent chance of advancing our knowledge of the principles of evolution. To do this is the laudable object of Mr. Bateson's volume, from which a few classes of fact will now be selected for illustration.

There are numerous genera of the Lamellicorn family of beetles, in which the males are known as "high" and "low" according to the length of their horns. A careful study was made of 342 specimens, and it was found that the two groups of high and low behaved as the members of two races, each sort having its own typical centre, precisely of the kind I described when defining the word race. These two sorts were separated by no hard and fast line but by an interval of scarcity.

Exactly the same occurred in respect to Earwigs, one form of them having their forceps of much greater length than the other. Out of 583 males, 124 had a forceps of $3\frac{1}{2}$ millimetres long, 88 had one of 7 millimetres, while there were only 7 whose forceps was $4\frac{1}{2}$ millimetres.

Cases of this kind fall under Mr. Bateson's category of substantive variations, or those in which the unit itself varies. The other great class is that of "meristic" variations, in which the unit is unchanged, but the number of units varies. An excellent example of the latter is found in the number of joints in the leg of the Cockroach. About one quarter of these creatures have four joints in the tarsus and the remainder have five joints. The length of the leg may be the same in both; the only material difference being in the number of joints. In either case the leg is perfect of its kind, without any sign of deformity; moreover, in either case there proves to be a typical form from which variants in different degrees occur with a frequency approximately conformable to that of the normal law of error. The book is full of instances of discontinuity. In one class of them the colour of cats is included. These animals are notoriously promiscuous in their interbreeding, yet the result is that they show very distinct types of coloration, pure specimens of tabby, tortoiseshell, black, grey, white, and piebald being frequent.

Mr. Bateson has thus far been more desirous to collect facts than to formulate theories, and is laudably cautious of committing himself too far. The following paragraph is one of the few in which he 'lets himself go,' and far be it from me to do otherwise than agree altogether with it. "The belief that all distinctness is due to natural selection, and the expectation that apart from natural selection there would be a general level of confusion, agrees ill with the facts of

variation. We may doubt indeed whether the ideas associated with that flower of speech, 'Panmixia,' are not as false to the laws of life as the word to the laws of language" (p. 573).

Inquiries are greatly needed into the discontinuous variations of human faculty, a subject untouched upon by Mr. Bateson in the present instalment of his most valuable work. The assurance that sports of considerable magnitude occasionally occur in moral and intellectual gifts, justifies more daring speculations than we are apt to indulge, in respect both to the past and future history of mankind. It does not seem to me by any means so certain as is commonly supposed by the scientific men of the present time, that our evolution from a brute ancestry was through a series of severally imperceptible advances. Neither does it seem by any means certain that humanity must linger for an extremely long time at or about its present unsatisfactory level. As a matter of fact, the Greek race of the classical times have surpassed in natural faculty all other races before or since, and some future race may be at least the equal of the Greek, while it is reasonable to hope that when the power of heredity and the importance of preserving valuable "transiliencies" shall have become generally recognised, effective efforts will be made to preserve them.

VI.—DISCUSSIONS.

ON THE FAILURE OF MOVEMENT IN DREAM.

There is a question about dreams to which at present I have not found a good answer. Why, when we strive to move in dream, do we not always move? I am hardly parodying the average account when I represent it thus: In dream we do not move, and, when we do, it is called somnambulism. And, though many psychologists of course stand far above this average level, I have not seen a satisfactory discussion of the question. And I thought that some reader of MIND could perhaps direct me to such a treatment, or would himself perhaps throw some light on the matter. I will in the meantime venture to set down such ideas as I have acquired.

That we move in sleep is clear, and every one knows it who, for example, keeps a dog. And how far such movements may go, either without a dream or again with one, seems difficult to say. The nature of common somnambulism and its relation on one side to normal dream, and on the other side to hypnotism or again monomania, seems a problem certainly not solved. But my question here is a narrow one. When in dream we think of moving and desire to move, why *usually* do we not move? The fact, I believe, is thus, and it calls for some explanation. And though I can adduce two reasons for this fact, I doubt if they are sufficient.

(1) We may give as a reason, first, the comparative weakness of psychical states in dream. Ideas of movement will, apart from hindrance, always, we may say, produce movement. But always on the other side there is hindrance to a certain degree. There is at least the inertia of existing physical and psychical states, as we may verify when lying awake in the morning before we rise. Obviously, therefore, if in dream the ideas of movement are weak, they may fail to move altogether or to move enough. We may not get beyond the easiest beginnings, such as movement of the tongue or the extremities, and, if the ideas grow stronger, we tend to become awake. Normally we must wake because, through redintegration, the ideas strive to fill themselves out to their usual context, and because that enlargement normally must bring waking and orientation. Otherwise we pass into some abnormal state not to be considered here.

This is the first reason, and it is open to objection as follows. It is not true (we may be told) that in dream all psychical states are weak. External sensations in part are absent and for the rest in general are weakened. And though some sensations of pressure and cold may be exceptions, we need not here take account of them. But with internal sensations and with ideas

the case is altered. For ideas and emotions may in dream be unusually strong, as is evidenced by certain physical effects. And we may compare with this the strength of ideas and of emotional states in hypnotism. So that on the whole it is not true that in dream motor ideas are weak.

To this objection we may reply that "strength" and "weakness" are to the last degree ambiguous. A very "weak" state, when hindrance is removed, may dominate mentally. And it is this absence of inhibition which explains the physical effects of dreams, and makes the "strength" of the emotions very doubtful. So in hypnotism the extreme mobility of the subject seems hard to reconcile with the asserted depth of the feelings. And in hysteria again the self is dominated by moods and ideas which in themselves would seem rather to be weak than strong. Hence the general weakness of dream-states (we may say) has not been disproved by the objection.

Still for our purpose such a general weakness may be inapplicable. For if ideas of motion can dominate our minds in dream, then (it may be pressed on us) this domination should be enough to move. We may reply that in the position of our limbs there is physical inertia, and, so far as that position implies feelings, there is psychical inertia too. And a certain degree of strength as against this inertia may be lacking to the idea, and so after all no motion need take place. And, as was remarked above, we may verify this when we are reclining and idly entertain the idea of movement. I will, however, not attempt to decide how far in this way the objection is met, but will pass to the second and, I think, the better reason for absence of movement.

(2) If an idea of movement is to move it must not remain general. It must (to speak broadly) be the idea of a particular movement, and that means it must be specified in more or less detail. If the detail is absent then, in general, no movement will follow the idea. Now as to the extent to which a motor idea must be specified *psychically* there is difference of opinion, and that question I wish to avoid. But what I will assume, and what seems enough for my conclusion, is this. If an idea of movement is to be effective, we must have some perception of the position of our limbs and perhaps also of their relation to the environing world. If I do not know where the ground is and where my legs are placed, my idea of running will probably not carry itself out. And to strike an object which has no given relation to my arm, when I also have no idea of that arm's position, seems an idle endeavour. Hence, if from any cause in dream the idea has to remain vague, the action on its side will remain in abeyance. And in dream it seems a fact that ideas of active movement do remain vague, and the reason of this fact can, I think, also be given.

As to the fact, so far as I know, there is little doubt. When

in dream I vainly desire to run or to strike, I have not a specified idea of movement proceeding to a certain point and there stopped in a particular way. It is always *somehow* only that I am prevented from acting, and it is only *somehow* that I intended to act. The idea, in brief, remains general, indefinite and vague.

And for this vagueness we are able to assign a cause. The information necessary to complete my idea in dream is wanting. The content of my dreams usually has no relation to the actual situation and position of my body. It is unusual even for any one to dream that he is lying in his own bed, the mind turning to other scenes which interest it more. And we may perhaps lay down as certain so much as this—if into my dreams there entered a perception of my actual bodily position in its relation to outer objects, then we should have passed beyond ordinary dreaming and beyond the subject of this paper. For in normal dreams our eyes are shut, and sensations from our skin and muscles in part are absent from consciousness, and are present in part to a very small extent. "Muscular sensation" in general is reduced to such a point as to have always little command, and usually none, over the course of our ideas.[1] And this failure in dream of a stable world in relation to our bodies seems a sufficient reason for our want of self-control. Our ideas wander partly at least because there is no perceived outer object by which to steady them. And for this same reason—for lack, that is, of incoming sensations—ideas of active movement fail, even as ideas, to complete themselves in dream.

Suppose that, while awake, I desire to strike some object. We may all agree that this action is a complicated affair, though we shall differ as to how far the complication is psychical. But at least I must know my attitude and my relation to the object, and to reach my end I must set in motion a train of means. Now part of this train consists in actual movements of my limbs and, more or less, in sensations coming in from these. And, if such steps fail, the series is not carried out to its end. If no sensation of any kind tells me that my arm is raised and bent, rather than hanging by my side, I cannot, I presume, go on to strike and to strike in a particular manner. But in dream this defect is normal. The sensations required to carry out the series do not occur, and the idea remains in consequence general and suspended. It is opposed by the body because, so to speak, it is out of relation with the detail of the bodily machinery.

This account seems confirmed by the fact that, where the required perception of the position is less complicated, dream-

[1] So far as the sensations from breathing are an exception, they are an exception which seems in accordance with our main thesis. For they tell us nothing or little, I presume, as to the position of the body. I am not here seeking to pronounce on the question how far self-control even in waking depends on a stable sense-world. To a considerable extent it clearly does so depend.

movements are easier. Thus, for example, it is common to move the lips and tongue and fingers. Wherever the idea happens to agree with the actual position, movement, we may say in general, results. Moved by an idea we can turn the body from discomfort or rub an irritable spot which is near to our hands; and there are other examples in some of which movement seems to follow an idea. So far as in dream a motor-idea can keep in relation with the actual position of our limbs, so far, given a certain intensity in the idea, movement seems to take place.

And if the idea is strong enough it will, I presume, always produce movement, not the movement required but still movement of a certain kind. But with this it will cause waking or at all events cessation of normal dream.

I have suggested, as some explanation of the absence of movement in dream, first the weakness of ideas, and next specially the vagueness of ideas of active movement. And the cause of this last seems to lie in the failure of corresponding sensations. But at this point we must consider a serious objection. For, while awake, one can imagine active movements in detail and with vividness, and yet no motion of the limbs need really take place. And, if the fact is so, it may seem to have destroyed our explanation. But I venture on the other hand to think that the explanation is confirmed.

As to the fact I shall say little. One can imagine active movements, I believe, in considerable detail though no movement of the limbs takes place. The amount of the detail and the presence, conscious or unconscious, of some change in the muscles do not concern us here. For one can certainly fancy oneself playing at a game with some particularity, and yet no changed position of the limbs need result.

But between such imagination and dream there is a most instructive difference. For in dream the "real" body is not present to consciousness, while always in imagination it is more or less perceived and its perception guides and controls us. We have there two worlds, one the world connected with our present real body, and this world, however dim, never ceases to be experienced. And beside this we have the other world which is called imaginary, a world which we merely behold or in which we may also be actors. And, if we act there, we must possess there an ideal body. Now within its own world of course our ideal body can move, but its movements in the main are confined to that world. For the perception of the real body, incompatible with and repelling such movements, forces them to develop themselves wholly in this other world of imagination. And the field of consciousness being thus marked out into two or more provinces, the feeling of defect and of collision is avoided. We may remember bodily movements that are past, or plan others in the future. We may hold ourselves passive spectators of a combat in which our all is at stake, or we may follow a struggle

on the boards of a theatre or in the pages of a book. In all these waking states there is some mental orientation and, with that, self-control. And the perception of our real body is in the end the point which serves to give us our bearings.[1] It is that which enables us to distinguish and to live in the various spheres which may be called "ideal".

Now whether our waking images have a force and detail which in dream is wanting, we need not seek to decide. The main point is that in dream the perception of our real body is absent. And this absence leaves ideas of movement free to develop themselves practically. They blindly struggle to complete themselves in and by relation to the hidden real body, and with that attempt comes failure and a sense of inability and of coercion. While dreaming we, in other words, have no means by which we can distinguish one world from another;[2] and our images thus move naturally to realise themselves in the world of our real limbs. But this world and its arrangement is for the moment out of connexion with our ideas, and hence the attempt at motion, as we have seen, for the most part must fail.

In the above suggested explanation I have not attempted to deal with abnormal dream-states. And how far with regard to normal dreams the account is satisfactory I do not know. Perhaps a psychological explanation of dreams may be impracticable, but it seems not certain, if so, that any other will ever be forthcoming.

[1] Of course in these cases (among which falls the more complicated instance of the actor's consciousness) we may, and sometimes do, fail to keep in mind the whole position. We "forget ourselves," and, if so, a bodily movement may happen at once. But with this lapse we have also passed beyond mere imagination. By a bodily movement I here mean that which would be commonly called an action, as distinct from a mere expression of emotion. In the case of the actor, where real bodily movement takes place, that happens within limits prescribed by the real, and not merely by the represented, situation.

[2] There is also a state of half-waking, half-controlled dream, not, I think, experienced by me personally. This state seems to be consistent with and to confirm the above account.

F. H. Bradley.

A CRITICISM OF A REPLY.

Mr. Bradley's handling of the notice of his book entitled *Appearance and Reality* seems to call for some remarks from the critic. But the fewer they are, probably the better. First of all, the critic has to disavow all intention of earning Mr. Bradley's gratitude by teaching him anything: the review was meant not for Mr. Bradley but for his readers. It is described as an attack, and it no doubt is one. That it might easily have been "an ordinary review" is also true, and had it been such Mr. Bradley perhaps would have been better pleased. In very much less time the writer could have strung together passages noteworthy for every kind of philosophic excellence except perhaps constructiveness. In his preface Mr. Bradley maintains that "the chief need of English philosophy is a sceptical study of first principles". Also he seems to say that his work is primarily meant to meet this need, and that, if it prove successful so far, his ambition will be satisfied. Any reviewer who had taken him at his word might have been congratulatory almost at every turn; for, assuredly, whatever else he may be, Mr. Bradley is a doughty iconoclast, reminding one of *Der Alles-zermalmende* of a century ago, except for the vastly superior "science" with which he punishes. But in the notice of his book in these pages it was assumed, rightly or wrongly, that Mr. Bradley was in truth essaying a reconstruction of absolute idealism more or less on Hegelian lines. Accordingly the reviewer's main endeavour was to disentangle what is positive from what is negative and to estimate its worth.

To have any worth at all as philosophy and not mere private opinion, Mr. Bradley's doctrine, which is that the universe is a perfect individual experience, must from first to last be a consistent, reasoned whole. On this assumption it was canvassed, and, so far as the writer can see, on no other: assuredly he had no mind to quarrel with the conclusion in itself. The smallest but the most important part of Mr. Bradley's argument is that this conclusion is absolutely true. The conclusion resolves itself into four propositions: two of these he himself allows are but "formal and abstract . . . empty outline" (*A. and R.*, p. 144). A question suggested to his readers was whether the other two propositions, giving "the matter which fills up the empty outline," are not also formal; and, if not, whether they are absolute truth, *i.e.*, "not intellectually corrigible" (*A. and R.*, p. 545). Quite rightly, Mr. Bradley devotes a good deal of his reply to this criticism. But it seems a pity that he should have thought the opportunity a fitting one to animadvert upon "exploded fallacies" and "mere dogmas" concerning the form and matter of truth, as to which his critic certainly advanced no opinions. Still, what is relevant in this reply has been helpful to several of his readers, as it has been to his reviewer among the rest: of this he can be assured. In the first place it seems plain that Mr. Bradley has not fairly faced

the dilemma: If absolutely true, then only 'formal'; if more than formal, then not beyond intellectual challenge. How else are we to understand his pointless rejoinder: "If I had said that Reality was a perfect Will containing somehow within itself a plurality of finite wills . . . would that also, I wonder, have been formal merely?" (p. 235). In the next place, Mr. Bradley seems tacitly to surrender the claim to absolute truth. "The idea of individuality showing itself variously through the facts of experience . . . from the space and atoms of matter to the highest life of the self-conscious self" (*cf.* p. 234)—assuredly that may sustain the presumption that the universe is a perfect individual. But is not a counter-proposition possible, even if less probable? Hence the critic's reference to the widespread but cheerless alternative of "an indefinite continuum". It is simply puerile of Mr. Bradley to affect to treat this alternative as "meaningless," when he has found it needful to controvert it at great length in his book, and there allows that, "except in the Absolute in which Nature is merged, we have no right to assert that all Nature has unity" (*A. and R.*, p. 290). Briefly put, the contention was that Mr. Bradley had argued *a priori* that his conclusion *must* be true, and *a posteriori* that it *may* be true; and that, as with his predecessor Hegel, the content of his first argument was borrowed from his second, and the cogency of his second helped out from the first. The suggestion, that if we had any absolute truth we should probably have all, and that as we assuredly have not all it is to be feared we have not any, was made by the way. Its bearing on Mr. Bradley's mixed method is obvious: can the same be said of his reply? (p. 235 *fin.*). But we are reminded (p. 238), that "one vital and reiterated argument" was passed over without notice. The reiteration certainly did not escape the writer's attention, but the argument had not seemed to him vital, and so with much beside was unhappily omitted. Here is one of many[1] statements of it, the first that comes to hand: "Our Absolute must be; and now, in another respect, again, it has turned out possible. Surely therefore it is real." If this is *all* that absolute truth, truth which is not *intellectually* corrigible, amounts to, further criticism may be spared.

Mr. Bradley charges his critic with "remembering at the end of his attack that something has been forgotten, the chapter on degrees of truth and reality" (p. 239). This is hardly fair, and certainly not true. At the beginning of the notice the said chapter is referred to as yielding "better results" than the other lines of argument, and is quoted frequently in the course of the notice itself. So far from being "staggered to find that appearance after all has degrees," the writer was perfectly aware of this from the outset. The perplexing thing was to see how such a doctrine could be reconciled, on the one hand, with the author's

[1] *Cf. A. and R.*, pp. 201, 203 f., 205, 216, 221, 222, 226, 227, 239.

doctrines concerning the Absolute in general and concerning absolute truth[1] in particular; or, on the other, with his reduction of each and every fundamental conception to an indefensible contradiction. No doubt he has Hegel's great feats and counterfeits behind him: we do not need to be reminded of that. But Hegel had at least a method and an orderly procession of categories. Mr. Bradley, on the contrary, essays to treat of knowledge from the point of view of an ideal limit in which it ceases to be knowledge by becoming reality. But what avails it to fish with a net as big as the sea? If now we were to turn the tables on Mr. Bradley and charge *him* with getting to the end of his book before remembering that something has been forgotten—degrees of truth and reality—many of his readers would agree that an answer to such a charge was due to them, and especially would they feel so if they read this chapter before reading the first book. Here the self-conscious self is the highest degree of reality that we directly know: to it we seem to owe "the idea of individuality which," as Mr. Bradley truly says, "can be, and is, used as the criterion of reality, worth and truth" (*Reply*, p. 234): there the self is found to be "a mere bundle of discrepancies" (*A. and R.*, p. 120). When in conjunction with this we have a psychology that Hume might have owned, the question perforce presents itself: How on such a basis can an absolute idealism be built up? This is the question raised by his critic on pp. 115, 116. Mr. Bradley's only reply seems to be: Is it surprising "that a principle should appear first in a less differentiated form"? (p. 236). Of course it all depends upon what the "principle" is. Every one will allow that "a finite centre of experience could not always be called such '*for itself*'". The question is, how far and in what sense is it such *in itself*, and how is it related to the "common substance with common laws," of which "material will and thought are one-sided applications"? (*A. and R.*, p. 479).

But assuming that the Absolute is Spirit and that self-consciousness is the highest spiritual experience that we know, is it not perplexing to be told that how the various constituents of such Experience "can come together into a single unity must remain unintelligible"? Surely if spiritual experience has any meaning at all these 'factors' always are together: if it is inconceivable that they should *come together and make* a unity, it may well be unintelligible how they do so. If the finite spirit is a life, how can the Absolute Spirit be an unintelligible concourse of co-ordinate aspects, attitudes, &c., &c.? Spirit is not a unity of knowledge, art, morality, &c., or of the theoretic, the practical, the æsthetic, &c.; unless indeed it be but a logical *summum genus*. Many of Mr. Bradley's readers, it is to be feared, will be disappointed to find that he sees nothing in these questions to concern him.

[1] He has his own private difficulties here, *cf. A. and R.*, p. 544 ff., and the critical notice, p. 123 above, where by the way, line 23, 'hint' should be read in place of 'limit'.

The mutual relations, in Mr. Bradley's work, of finite centres, appearances and the Absolute, and again of the Absolute and the Universe, are not easy to make out. Some passages suggest one view and others another. As one instance: it is asserted that Reality is nothing at all apart from appearances and that these are wholly its revelation. Surely then finite experiences as recipients of this revelation are necessarily implied; albeit Mr. Bradley treats the fact of finite centres as inexplicable. His critic suggested that this was something of an absurdity; but he did not urge "that if the 'how' of appearances is inexplicable, they cannot be a revelation"; nor yet maintain "that revelation must mean total manifestation perfect in every point". It will be convenient here to notice that Mr. Bradley's retort frequently takes the form: But I have of course argued the precise opposite. No doubt in some other part of the work: hence the incoherence repeatedly complained of, is the rejoinder.

Mr. Bradley is mistaken in supposing his critic to urge against him "that process within the Absolute is but appearance and *hence* is 'pure illusion,'" whereas his own view is that appearance is partial truth and therefore *not* pure illusion. But the point is that "within the Absolute" there is *no* process, *no* relations and *no* things: further that *re*-blending and *re*-arrangement which is the final destiny and last truth of finites can hardly be called appearance for them, for in it they 'are transmuted and lose their individual natures'. What then is it? Some further remarks on Mr. Bradley's treatment of time and change, it would, he implies, be libellous to characterise, and he appeals to the reader's censorship. His critic will gladly stand by the appeal.

But he admits that elsewhere he has mistaken and misquoted. On p. 431 the author thus begins the statement of a view that he is controverting: "The good, *we may be informed*, is morality," &c. On p. 432, at what was mistaken for the end of such statement, he continues: "And hence (*we may add*) it will be hard, &c. . . . For the intensity of a volitional identification with whatever seems best appears to contain and to exhaust the strict essence of goodness. On this alone are based moral responsibility and desert, and on this, *perhaps*, we are entitled to build our one hope of immortality." The italics are put in to show how the reviewer was misled. But he ought in any case to have known better, says Mr. Bradley, for I have repeated my opinion on p. 508, and quoted Hegel to boot. As if Hegel were not claimed by both sides! Then on p. 510 he concludes in a very impressive passage: "A personal continuance is possible, and it is but little more. Still, if any one can believe in it and finds himself sustained by that belief—after all it is possible." The mistake, it is pleaded, was not a grossly careless one: still it is regretted.

As to "the pre-eminence of will" Mr. Bradley implies that he

is aware of a third possibility beside the mechanical and the volitional. He allows (*A. and R.*, p. 485) that he has given the subject but "hurried notice". Perhaps some day he may see fit to explain himself further and to make clearer what he understands by "the realised and solid moral will" which can neither "be quite real, as it exists in time," nor "quite appear in its own essential character" (*A. and R.*, p. 382: *cf.* notice, p. 122).

Finally Mr. Bradley stands by his position "that, *unless* partial constituents *were* defective, they never could be elements in a system at all" and refers us to his book, p. 422. His critic in turn has only to repeat his question: "*In what sense* can a system be perfect, harmonious and complete, when every constituent is *not only partial but defective?*" (p. 124). Is not Mr. Bradley's philosophy in danger of earning the title which his "great master" bestowed on Spinoza's: is it not an acosmism?

JAMES WARD.

VII.—CRITICAL NOTICES.

A History of Philosophy with especial reference to the Formation and Development of its Problems and Conceptions. By Dr. W. Windelband, Professor of Philosophy in the University of Strassburg. Authorised translation by James H. Tufts, Ph.D., Assistant-Professor of Philosophy in the University of Chicago. London and New York: Macmillan & Co., 1893. Pp. xiii., 659.

It is with justice that the author calls attention to the special aims he has set before himself in his attempt to trace the rise and development of philosophical problems and conceptions, and to the special difficulties with which his work has to contend. Histories of Philosophy which follow the chronological order and expound the several doctrines of prominent thinkers are abundant. In the more modern of these, increasing importance has been assigned to the relation in which the individual thinker has stood to the spirit of his time, and, since Hegel's stimulating presentations of the course of speculative thought, there has been general recognition of the principle that in the successive phases of the history of philosophy there are to be seen the internally connected stages of the development of philosophy itself. But the difficulties in the way of systematically applying this principle are extraordinarily great. Even Hegel himself overcame them in but an arbitrary fashion and can hardly be said to have presented the history of philosophy in strict accordance with his own principle. All the more credit, then, must be accorded to the author for the singularly able and attractive statement he has succeeded in giving of the ways in which "European humanity has embodied in scientific conceptions its views of the world and its judgments of life" (p. 9). He has kept more definitely in view than any of the small number of his predecessors the principle of historical development, and has endeavoured faithfully to depict the main forms in which the philosophic problem has been approached and to give due weight to the chief historic forces that have determined both the form of the problems set and the solutions offered.

The problems of philosophy arise in and through reflexion on the materials of experience, and obviously both factors, the reflexion directed on experience and the experience reflected on, while retaining throughout a certain community of general character and structure, are subject to historic variation. The solutions offered are the expressions in scientifically formed notions of the completest insight each age has attained into the general relation of human existence to its surroundings. They give voice and consciousness of itself to much that in semi-conscious or unconscious fashion is operative in varied directions

in what has been conveniently and summarily described as the 'spirit of the time'. That the formation of such ultimate notions is the work of individual thinkers, and influenced therefore to some extent by their personality, introduces a further factor with which the historian of philosophy has to reckon, but one with which an attempt to trace the evolution of philosophy itself may justly concern itself little. Such an attempt has to interest itself mainly in the net result achieved, not in the particular character of the instrument.

For the successful execution of such a genetic survey of philosophical problems and ideas as is here presented, no small preparation is required. The field of research is wide, too wide, indeed, for any one investigator to deal with in detail; the main problems are at times in danger of being submerged in the mass of accompanying circumstance; the historic conditions that determine important alterations of general treatment carry the research at times far beyond the ordinarily recognised limits of philosophy; and it needs a trained judgment to select from the mass what has historically proved of most significance and to give it its due setting. In all these respects the work of Prof. Windelband shows that the author is fully equal to his task. He has already given more detailed surveys of several large sections of the general history of ancient philosophy, of the modern philosophical movement culminating in the Kantian system, and of the Kantian system itself. The same soundness of judgment and conscientious mastery of detail exhibited in these works are displayed in the outlying sections of the general history. No one can read his work without being impressed by the completeness of knowledge which the author shows himself to possess and without deriving instruction from the luminous fashion in which he brings forward the leading ideas of the several stages of philosophical development. On points of detail and on the relative prominence to be accorded to particular problems and ideas, there may be differences of opinion, but there can be no difference of opinion as to the generally high level of excellence of the work or as to its great educative value. For in this respect we agree entirely with Prof. Windelband, that if the history of philosophy is to be of value, it can be so only when regarded as the exhibition of the gradual development of the most general ideas in which the human mind expresses its views of the world and of life.

The first and perhaps the simplest of the problems which the historian of philosophy has to undertake is that of the general division of his subject. On this point there seem to be on the surface great differences of opinion among historians of philosophy, but as a rule divergence in the indication of the main divisions is modified by the introduction of sub-divisions which bring back a fair uniformity. Windelband's general distribution has much in its favour. He regards the whole development as falling into the following periods:—

(1) The Philosophy of the Greeks: to the death of Aristotle.
(2) Hellenistic Roman Philosophy: ending with Neo-Platonism.
(3) Mediæval Philosophy: from Augustine to Nicolaus Cusanus, from the fifth to the fifteenth century.
(4) Philosophy of the Renaissance: from the fifteenth to the seventeenth century.
(5) Philosophy of the Enlightenment: from Locke to the death of Lessing.
(6) German Philosophy: from Kant to Hegel and Herbart.
(7) Philosophy of the nineteenth century.

The divergence of this scheme from the more current distributions, whether of the whole history or of Ancient and Modern Philosophy severally, is somewhat lessened by the sub-divisions introduced in the second and fourth periods. In the Hellenistic Roman there is a sub-division into the Ethical period, corresponding to the Stoic, Epicurean and Sceptic schools, and the Religious period, embracing the antecedents of Neo-Platonism, the Christian Fathers and the early Jewish Alexandrians. In the Philosophy of the Renaissance, under which falls the whole Cartesian movement, culminating in Spinoza, and also part of the activity of Leibniz, a sub-division is made between the Humanistic period, that to which in ordinary parlance the term Renaissance is specially applied, and the Natural Science period, embracing Bacon, Hobbes and the Cartesians, and excluding the early Italian natural philosophers.

In regard to all such general divisions of the historical material, it must be said that occasionally a question of principle is involved, but for the most part the problem is too indeterminate to allow of a decision that excludes all elements of arbitrariness. It is seldom the case that accompanying historic circumstances give to a change in philosophic tone and method the definiteness we require in order to draw a sharp line of separation. Even where such a line seems possible, as, *e.g.*, in the transition from Aristotle to the Hellenistic Roman Philosophy, or in the beginning of the Renaissance movement, there is not to be thrown out of sight the continuation of the earlier system which goes on side by side with, and not without influence on, the newer ideas. For the purpose of such a survey as that here given, minuteness of historic detail is, however, of secondary moment.

We agree entirely with Prof. Windelband in the sharp line o distinction drawn between the Greek Philosophy proper and what he has called the Hellenistic Roman. There is a remarkable continuity of development from the first germs of Greek reflexion on the universe and man to the systematic representation of Greek ideas in the theoretical and practical philosophy of Aristotle, and the later forms of Hellenistic thought have more the character of attempts to carry out and apply these ideas amid novel surroundings, whether social or political as in the Stoic and Epicurean schools, or religious as in the amalgamations of Greek metaphysics

with Oriental and Christian doctrines, than of additions to or legitimate development of them. The fresh essay of the Greek mind which has proved itself of such decisive significance for the history of human culture reached its culmination in the systematic work of Plato and Aristotle.

Perhaps the only doubt in regard to the Hellenistic Roman period concerns rather a matter of detail than one of general classification. It is no doubt true that the Stoic doctrines have a strongly practical tendency, and that the later Stoics in particular, from whom for the most part the modern mind has taken its general conception of the whole school, concentrate their efforts on the elaboration of a rule for conduct in life. But it ought not to be forgotten that the Stoic metaphysics and theory of knowledge carry throughout the stamp of a single dominating idea, an idea which puts them in a fresh and important relation to the great antecedent system of Plato and Aristotle. In opposition to the dualism which is the key-note of that system, both in its Platonic and in its Aristotelian form, the Stoics struggled hard to carry out the great conception of the essential unity of all existent fact. That they failed in many important respects, that their solutions are often violent dogmatic assertions rather than reasoned results, and that the later representatives of the school tended to recede from its fundamental position, all this is to be acknowledged. But it does not affect the real significance of their general principle, the principle which gives consistency to their manifold speculations in theology and psychology, and through which they exercised so important an influence on the succeeding movement of the Greek mind when it encountered the new religious ideas of the Eastern world. In regard to the fourth period, the philosophy of the Renaissance, a doubt may be entertained as to the justice of including under one head such diverse movements as Humanism and the Cartesian systems, and even as to the propriety of such a designation as 'Natural Science period' for what includes Spinoza. But with the increasing richness of the material in modern times, the impracticability of exact demarcation likewise increases, and if the main problems and lines of thought are brought into prominence and given their due relative value, the form of general designation becomes unimportant.

In the attempt to make clear to ourselves the full meaning of an earlier philosophic view, the main obstacle seems to lie in the difficulty of adequately reproducing the medium of ideas and feelings within which the view took shape and to which it throughout maintains reference. Even when these floating ideas have found expression in scientific theories or dogmatic beliefs, the difficulty is only lessened, not wholly removed. It must always therefore be a question of method, on which difference of opinion is admissible, how far in describing the nature and history of definitely philosophical conceptions account should be taken of such

accompanying ideas of natural science or theological belief. At times, indeed, no choice is left to the historian of philosophy. He cannot treat of the movement of philosophy in the first centuries of the Christian era and not include a statement of the essential import of the new dogmatic ideas. He cannot handle the Renaissance writers without giving prominence to the new conceptions which extended knowledge of nature was supplying to philosophical reflexion. But, on the whole, the general tendency among historians of philosophy, and it is sufficiently intelligible, is to limit so far as possible the reference to what may be deemed extraneous. In particular this tendency has deeply affected the whole treatment of modern philosophy by throwing into the background the relation of the whole chain of philosophical development to the representation of existence that seems to constitute the essential basis of the Christian faith. In Prof. Windelband's condensed exposition, it is natural and inevitable that recognition of the bearings of advancing natural science and modified religious beliefs on philosophic conceptions should be only in principle, not in detail. It is, perhaps, the consequence of the relatively small share accorded to them, that his closing section on natural science and history in their modern form and as influencing philosophic thought should strike one as very inadequate, and as, indeed, connecting itself very imperfectly with what has gone before.

In a work of so extensive a compass as a survey of the development of philosophic ideas, it is inevitable that all the sections should not be executed with the same degree of strength and completeness. The work, truly, is as a whole deserving of the warmest commendation, and there is no one who will not learn from the clear and masterly fashion in which the writer draws from the mass of detail before him the leading ideas and presents them in the form in which they have proved themselves historically significant. No one, moreover, will question the justice of the plea offered by the author for the relatively greater space accorded to the history of ancient, that is Greek, philosophical conceptions. The seed-time of our intellectual history is of all others the most important and the most attractive, and in no better way can the genuine study of philosophical ideas be undertaken than by tracing the wonderful history of their origin and formulation in the Greek mind. The section on Greek philosophy has the benefit of the author's previous more detailed sketch, and it is executed with marvellous ability. It is truly surprising how much of detailed matter the author has managed to introduce into his brief but striking narrative of the progress of Greek thought from its tiny origin to the elaborated system of the Aristotelian doctrine. On some of these points of detail, indeed, some difference of opinion may be permitted. It still seems to me that it is only with so much qualification as to alter the apparent meaning of the statement that the Eleatic view of Being can be summarised

as the ' space-filling '. I should doubt the interpretation which appears to be offered (p. 38) of the half-verse of Parmenides, and I believe that the account given of Anaxagoras' view of matter does not do justice to all its features and is hardly consistent with what we can gather from Aristotle's criticism of it. In regard to the position of Democritus, while it is to be acknowledged that the customary mode of stating his doctrine as one type of the Pre-Socratic is wholly unhistorical and in contradiction to what we know of the influence on him of Protagoras, yet it seems to me that Windelband exaggerates the counter-view in according to Democritus a place alongside of Plato and Aristotle. As Windelband has himself to acknowledge, Democritus stands in no relation to the Socratic teaching, and his appearance therefore alongside of Plato and Aristotle is just in a sense as unhistorical as the customary assignment of him to the Pre-sophistic age. But the question is not one of much importance. Perhaps Windelband speaks a little more definitely than our authorities warrant on the important and difficult matter of the distinction drawn by Democritus between ' obscure ' and ' clear ' knowledge. It seems hardly possible to put that in a consistent form.

In his excellent section on Aristotle, Windelband notes (p. 147) the influence of astronomical views on his general philosophy. I am convinced that it is necessary to incorporate far more freely than is usually done Aristotle's conceptions of nature, so far as they can be definitely ascertained, in the statement of his abstractly expressed metaphysical and epistemological doctrines. They influence these in the most intimate fashion, and seem to me, indeed, to give them a significance which our modern interpretation, based on wholly diverse conceptions, altogether ignores. In particular, Aristotle's difficult notion of development is by most of his modern interpreters, as by Windelband, stated in so general, so abstract a fashion as to carry it quite beyond the horizon of the Aristotelian system, and so to make it impossible to understand certain applications of it made by Aristotle. I note here, that I cannot understand Windelband's paragraph (pp. 142-3) on species.

The sections on the Hellenistic Roman and on the Middle Age philosophies seem to me deserving of nothing but praise. The leading ideas of historic value are brought forward with such easy mastery of the immense underlying detail as to fill one with admiration and to deprive one of any desire to raise difficulties on points of detail. I am struck by the excellent way in which Windelband distinguishes *Scholasticism* and *Mysticism* in the mediæval period and connects each with its historical antecedents.

It is when the history of human culture becomes enlarged by new methods and by new fields of knowledge and activity that philosophic conceptions present themselves in such complication as to render their reduction to stages in one continuous develop-

ment well nigh impossible. The same scale and mode of treatment possible in the case of the Greek philosophy, or in that of the Renaissance period, become inadequate when the modern, and above all the most modern systems of thought have to be reviewed. Thus, while acknowledging the excellence of Windelband's statement of the pre-Kantian doctrines, I doubt whether it can be felt either that complete justice has been done to such thinkers as Spinoza and Leibniz or that all their contribution to the advance of philosophic ideas is fairly stated. So too, while in like manner admiring the clear, concise, and on the whole satisfactory statement here offered of the Kantian doctrine, I cannot feel that much light is by it thrown on the significance of the Kantian criticism in the development of philosophic thought. And it is evident that an altogether hopeless task is undertaken in the two concluding sections. All that the author has to say on the German work subsequent to Kant is of interest, but it does not impress me as succeeding in the aim it has in view, to indicate what exactly is the nature of the change of philosophic conceptions involved in that work. It is, perhaps, impossible that this should be done without a larger excursion into the material than is within the limits of the work.

These remarks are not intended to indicate any sense of dissatisfaction with what the author has given, and it is probable that the learned author would be the first to acknowledge how inadequate must be any condensed statement of so many extensive treatments of the whole range of experience.

The translator seems to have executed his task with great fidelity. There are but few sentences which compel one to pause and to consider that the author's drift has not been seized. But the translator must pardon the remark that he has not been altogether successful in turning the German into English. The book reads throughout like a translation, and in some—not, it may be said, too many—cases the rendering is so harsh as hardly to deserve the designation *English*. I believe the English language is capable of expressing any shade of thought that may require to be expressed, but it has its own way of doing so; and its ways are not the ways of the German tongue. Literal translation of the innumerable particles whereby the genius of the German tongue makes itself clear or obscure does not succeed in achieving the same result for the English mind. There are also sufficient misprints and minor errors to warrant a list of *corrigenda*.

R. ADAMSON.

History of the Philosophy of History. By Robert Flint, Professor in the University of Edinburgh. Edinburgh and London: William Blackwood & Sons, 1893. Pp. xxvi., 706.

It is now just twenty years ago since Prof. Flint, in a volume on *The Philosophy of History in France and Germany*, placed before the public his original endeavour "to give an account of the principal attempts which have been made in France and Germany philosophically to comprehend and explain the history of mankind, with a reasoned estimate of their value". Of the rapidly increasing number of historical students in English-speaking lands, few probably have failed in the interval to become to a greater or less extent familiar with his labours, although those who have most profited by his wide research and the suggestiveness of his analyses must have almost despaired of ever seeing them brought to completion. Prof. Flint has, indeed, been compelled for a number of years altogether to put those labours aside. It is accordingly a pleasant surprise to learn that he has been able to return to them; that he has done so, moreover, with renewed zest and with an increased sense of the importance of his subject; that he has found time to reconsider and modify his treatment, and is still hopeful of being ultimately able to give to the world "a real and comprehensive history". But a comparison of the volume of 1874 with that now before us alone suffices to suggest the vastness and complexity of the undertaking. Although the present edition contains some hundred pages more, the 376 relating to Germany have been entirely withdrawn; the introduction has expanded from 62 pages to 171; while the remaining 535 are occupied with France, French Belgium, and Switzerland exclusively.

On comparing the present volume with its predecessor, the introduction appears to offer the most marked points of contrast. In 1874 the author saw no difficulty in assuming that there was "no need" to "start with any definition of the philosophy of history, or any attempt at a precise description of what it is" (p. 1). The criticism to which this avowal exposed him at the time, and the different view since taken by other labourers in the same field, and notably by Prof. Bernheim, in his elaborate *Lehrbuch der historischen Methode*, have however apparently suggested that something more in the way both of definition and explanation will now be looked for at his hands. He therefore enters at some length into his views, both as to theory and method. He argues that there *is* such a thing as a "science of history" and as a "philosophy of history," although, he says, "I confess that if restricted to one of them it is the latter which I should prefer". Mr. Goldwin Smith has pronounced the former an impossibility, and Prof. Flint now seeks to refute Mr. Goldwin Smith's arguments. I cannot say that he appears to me to have done so very successfully; in fact, I cannot but think he has some-

what misapprehended Mr. Smith's objections. But as regards the adoption of either term, he writes: "I cannot see any objection to often employing the terms science and philosophy interchangeably. Rigidly and continually to distinguish them is not only what no one does, but what no one should do, inasmuch as it tends to lead readers to overlook the intimate connexion and community of nature of science and philosophy" (p. 19). Another critic of the earlier volume, Mr. John Morley, took a somewhat different view to that of Mr. Goldwin Smith. He thought it would have been much better, and that a good deal of "unsatisfactory vagueness" would have disappeared, if the author had given to the book the title, "A Science of History," and had, at the outset, "expounded his own theory" of the "science". Against the reasonableness of such a demand, Prof. Flint, however, now warmly protests; he even goes so far as to say that to him it "seems as utterly unreasonable as to maintain that an historian of chemistry must begin his history with an exposition of the science" (p. 23). He prefers, accordingly, while passing under review the more notable of the many attempts made during the last century and a half by speculative genius among the French-speaking race towards discovering the laws of order which regulate human affairs, "to pronounce" (*pari passu*) "judgment on the truth or falsity of what is essential and characteristic in them"; and he even ventures to add that his aim will altogether fail in its accomplishment if "the conceptions of the reader as to the character, scope and method of the philosophy of history, as to what it ought to do and how it ought to do it," are not "constantly increasing in definiteness and accuracy as the inquiry itself advances" (p. 4). Whatever doubts and difficulties remain will, he holds, be better discussed "at the end of our historical review, when, from the vantage-ground gained by a study of the thoughts and labours of the past in this department of research, and a knowledge of its failures and successes, we may hope to get a clearer view than we could otherwise have attained of the duties of the future, and of the aims which a philosophy of history may reasonably propose to itself" (p. 5).

That an equal obligation rests on him who undertakes to write a history of the science of chemistry and on one who aspires to be the historian of the philosophy of history, to propound a preliminary theory of the science or philosophy itself, is a proposition which will certainly not meet with general acceptance; and this simply because, in the one case, the principles of the science are almost universally admitted, in the other, they are still almost as universally in dispute. But it is evident that Prof. Flint's decision is attended with considerable advantages. He is thereby enabled to sit in judgment on the merits of each successive writer without himself being committed to any abstract canons of criticism. Unpledged to any distinct theory, he may censure or applaud with much greater seeming independence than one

who, like Buckle, enunciates his own doctrine, and is consequently bound to find in each instance to which his test is applicable some fragment of verification. It remains, however, that a writer who thus claims to set before us simply a wide survey of past and present theorisation to serve as the basis of a future induction,—adequate, deliberate and impartial,—does seem to be in a manner himself precluded from assumptions, whether expressed or implied, which in themselves constitute a theory of primary importance. And with respect to this point, it is to be feared that critics of an opposite school will find occasion for demur, nor does the author himself appear to be altogether without misgiving. His language, at least, is far less dogmatic in tone than in the first edition, and notably so in one particular passage at the conclusion of his able summary and criticism of the *De Civitate* of Augustine. In 1874, he wrote as follows: "The ultimate and greatest triumph of historical philosophy will really be neither more nor less than the full proof of providence, the discovery by the processes of scientific method of the Divine plan which unites and harmonises the apparent chaos of human action contained in history into a cosmos" (p. 22). In the passage as it now stands, we read: "The ultimate and greatest triumph of historical philosophy *may not unreasonably be expected to be* (the italics are ours) the full proof of providence, the discovery," &c. (p. 157). Now what a writer, at the outset of his inquiry, holds "may not unreasonably be expected," he will probably in the course of his investigations at least seem to find. But I cannot but think there will be those who will hold that after so distinct an intimation of the fact that his sympathies are ranged on the side of Augustine, the author's avowed reserve with respect to any declaration, "at the outset, of his own conceptions as to the sphere, method and conclusions of the philosophy of history" (p. 23) loses much of its value. Such an impression will scarcely be dispelled when we note the manner in which he occasionally permits himself to speak of writers who belong to the opposite school. In his criticism of Voltaire, for example, little exception can be taken to the observation that "one of Voltaire's chief disqualifications as an historian was his incapacity to appreciate with sympathy and fairness religious phenomena," and that he was "especially embittered against Christianity". But when he goes on to say that "Voltaire failed to recognise clearly in history a comprehensive plan, a pervasive order, such as implies a Divine will operating through human wills, a first cause working through secondary causes," and then proceeds to characterise this dimness of historical perception as "blindness," it is impossible not to feel that he is censuring François Mary Arouet for having failed in the eighteenth century to grasp a conviction at which a professor at Edinburgh in the latter half of the nineteenth century considers that we may, as the result of profound inquiry, "not unreasonably expect" eventually to arrive.

In another respect the treatment might appear open to grave objection when we note that it deals with the subject according to nationalities. When we consider how Bolingbroke influenced Voltaire, and Locke, Rousseau; how Hegel influenced Cousin, and Herder, Quinet; and how frequently historical speculation in England has reflected the thought of both Germany and France, it might well seem that what Prof. Flint terms the "universal" method must, on the whole, be preferable to the "national" method. He, however, assures us that he fully appreciated the force of such an objection, and that it was only after he had tried the alternative method and found himself compelled to abandon it that he, "with reluctance," adopted the plan which he has pursued.

Among the other chief differences between this edition and its predecessor, I must note the greatly increased attention bestowed on Voltaire, Rousseau and Condorcet, and generally on the writers of the Socialistic school. In treating of the conditions which affected historical study in France subsequently to 1789, some account should, I think, have been taken of the results which followed upon the overthrow of the universities and the imposition of that rigid uniformity in State education to which writers like MM. Jules Simon and Lavisse have held that the dearth of originality and the absence of speculative activity during the last half-century in France are in no small measure attributable. The criticisms on Cousin, Jouffroy and Guizot stand very much as they were; and it is perhaps to be regretted that the first, who, as a lecturer, mistook the legerdemain of rhetoric for solid argument, should still be permitted to occupy so much valuable space in order to prove his radical unsoundness. In the ninth chapter, on "The Democratic Historical School," the criticism on Quinet has been greatly improved both as regards arrangement and treatment, and now forms a highly interesting study of that singularly characteristic writer.

In the tenth chapter, which treats of the "Historical Philosophy of Naturalism and Positivism," some two or three pages are devoted to Charles Comte, that admirable writer to whom, I cannot but think, Buckle was under greater obligations than he cared to acknowledge; and here Prof. Flint's criticism appears to me not only inadequate but somewhat unfair. The main object of the *Traité de Legislation*, so clearly expressed in its second title—an *Exposition of the General Laws according to which Peoples prosper, perish, or remain stationary*—was to call attention to all-important factors in the history of mankind which preceding philosophisers in that history, Montesquieu alone excepted, had persistently ignored. Prof. Flint is of opinion that Charles Comte did not succeed in establishing any of those laws the existence of which he sought to demonstrate, and he further pronounces it to be this eminent writer's "radical error" that he "failed to perceive that the intelligence, the imagination, the

passions, the conscience, and the will of man are more direct and powerful historical agencies than climate or soil". If Charles Comte were still living, he would probably reply that human intelligence, conscience and will vary immensely in different nàtionalities, and that a close attention alike to historic and prehistoric times teaches us that the characteristics of nations, and of large classes in those nations, are largely conditioned by climate and soil. There are few more pathetic pages in the literature of modern philosophy than those in the thirteenth chapter of his fourth book, where he points out how, in that sharp struggle for existence which is the necessary outcome of such conditions, the intellectual powers of the great majority perish without the owner ever having had the opportunity to bring them into play, how all that is best in the individual often slumbers on in life and eventually expires with him, "like tunes in mechanism unawaked"!

In following up his criticism, Prof. Flint appears to me seriously to misrepresent Comte. "Various authors," he says, "have represented civilisation as advancing from east to west. According to Charles Comte it has spread from the equator northwards. . . . There is no evidence that civilisation originated at the equator; no likelihood that it originated either in the moister or drier parts of the torrid zone, alike unfavourable as they are to the development of man" (578). I am unable to refer to the edition of "1822-23" which Prof. Flint cites, but in that of 1827 what the author says is as follows: "En recherchant ensuite comment la civilisation s'est répandue sur la surface du globe, nous avons trouvé qu'elle s'est développée entre les tropiques ou dans les pays qui en sont les plus rapprochés; qu'elle s'est répandue de là vers les zones temperées, et que les peuplades les moins éloignées des pôles ou les plus isolées ont toujours été les plus barbares" (vol. iii., p. 242). The importance of this great law in the progress of the human race has recently been well brought out by Prof. Ratzel of Leipzig, in the second volume of his *Anthropogeographie*, where, in the chapter "Beziehungen zwischen Bevölkerungsdichtigkeit und Kulturhöhe," he supplies some additional links in the chain of evidence which serves to show that civilisation began in those regions where beneficence of soil and climate most favoured the growth of population. "And in proportion as men are brought into closer contact with each other," says Prof. Ratzel, "so do they find themselves under the necessity of developing their powers and higher faculties." It is in every way probable that civilisation commenced in sub-tropical regions, and afterwards largely migrated to those more northern climes where the civilisation which they carried with them enabled them to subdue nature to their requirements, while in a more hardening atmosphere and under more stimulating conditions they, in turn, acquired that superiority in arms which enabled them subsequently to conquer the civilisation of the south.

The portion relating to Auguste Comte, so severely criticised on its first appearance, has been almost entirely rewritten. Prof. Flint now finds himself ready to admit that "notwithstanding many imperfections, the *Cours de philosophie positive* was the most important work which had appeared up to the time of its publication in one great department of philosophy". Its "ability and general truthfulness" are ungrudgingly recognised, and the exposition of the "Three Stages" is in every way more worthy of the subject and of the general level of criticism throughout the volume.

While venturing upon these comments on points where the treatment appears to me to be open to some exception, I do so with a full sense of the great value of this instalment of a most important work. There are few volumes, if any, in recent literature, which embody such genuine acquaintance with the subject-matter combined with criticism of so high an order and conceived in so catholic a spirit. The work with which, in English literature, it most invites comparison is Mr. Leslie Stephen's *English Thought in the Eighteenth Century*, and when Prof. Flint comes to traverse the same ground as his distinguished contemporary, the points of comparison will be of no little interest and instruction. The student who most values the book will, however, regret the absence of an index,—one not merely of names, but of those abstract terms which would refer him to the leading questions at issue as dealt with by each writer; and it would have been well if the literature relating to each chapter had been placed uniformly at its commencement, instead of being allowed to appear somewhat casually, and at irregular intervals, in the form of footnotes.

J. Bass Mullinger.

The Logic of Hegel. Translated from the Encyclopædia of the Philosophical Sciences. By William Wallace, M.A., LL.D., Fellow of Merton College, and Whyte's Professor of Moral Philosophy in the University of Oxford. Second Edition, revised and augmented. Oxford: At the Clarendon Press, 1892. Pp. xxvii., 439.

Prolegomena to the Study of Hegel's Philosophy, and especially of his Logic. By the same. Second Edition, revised and augmented. Oxford: At the Clarendon Press, 1894. Pp. xix., 477.

These two volumes, together with a smaller one on *The Philosophy of Mind*, complete, for the present, Prof. Wallace's contributions to the translation and exposition of Hegel. They furnish the English reader with a complete outline of all the more solid parts of Hegel's work (*The Philosophy of Nature*, which is omitted, being generally allowed to be somewhat premature). And cer-

tainly the form of presentation could scarcely be made more attractive. Alike in convenience of size, in excellence of type, in fulness of material, and in grace of style, there is but little scope left for improvement. If it is possible to make Hegel an English classic, these volumes ought to suffice to establish his claim.

The two volumes with which alone we are at present concerned are substantially a reproduction of a work which is already well known, having been originally published in 1873, more than twenty years ago, and considerably before the foundation of this Journal. There are, however, some important modifications. The *Prolegomena* have been re-arranged, and extensive additions have been introduced ; while the translation has been much improved, and the volume containing it has been enriched with a bibliographical notice and with several valuable notes. This work, in its earlier form, was almost the first serious attempt to introduce the philosophy of Hegel to English readers ; for the previous efforts of Dr. Hutchison Stirling (*The Secret of Hegel*, 1865, and *The Philosophy of Law*, 1872), in spite of their great brilliancy and force, were rendered somewhat impenetrable by reason of the personal idiosyncrasies of the author and his imperfect sympathy with English modes of thought. And, with the numerous improvements that have now been introduced, it may safely be predicted that Prof. Wallace's work will remain for many years the one reliable English text-book[1] to the fundamental ideas of the Hegelian system.

It must be allowed, however, that, even with the best of editors and commentators, the difficulty of naturalising Hegel in England is very great.[2] It was Hegel's aim to make philosophy speak German. Perhaps he was hardly successful in this ; but at least we may say that he made *Germany* speak philosophy. The whole reflective spirit of his nation seems to utter itself through his voice. Such an utterance, as Prof. Wallace fully recognises,[3] cannot easily be adapted to another organ. Nor is the difficulty in Hegel entirely one of nationality. It is partly the difficulty of change of age and surroundings. He wrote at the culmination of the romantic period, at a time when men were apt to let themselves go in mystical intuitions of the secrets of nature and human life. Hegel's almost prosaic good sense and almost cynical humour saved him from the worst extravagances of this period ; but, even in his work, the modern critic, accustomed to the cautious investigation of details, which is regarded as essential to the *sichere Gang der Wissenschaft*, is apt to think some of the wide speculative interpretations premature and some of the criticisms of the particular sciences quixotic. Hegel's style is also

[1] In saying this, I ought perhaps to state that I have not yet had an opportunity of studying the volume on Hegel's *Logic* by Dr. W. T. Harris.

[2] *Cf. Prolegomena*, p. 9 *sqq.*

[3] *Prolegomena*, pp. 9-10.

a source of difficulty. It has abundant force and pregnancy, but it is apt to be abrupt and enigmatic. And, apart from all these more extraneous difficulties in the Hegelian system, it must be allowed that the ideas themselves which are contained in it—and perhaps especially those contained in the *Logic*—are hard enough, even when they are presented in their most easily intelligible form.

What is Hegel's Logic? This elementary question is, I suppose, the first stumbling-block in the system. How is the Logic here presented related to that which more commonly passes by that name—or rather to the various other Logics with which we are familiar?[1] How is it related, on the other hand, to what is known as Epistemology and to what is known as Ontology? Is it to be identified with any one or with all of these? Or does it occupy an independent province of its own? Again, how is it related to the other parts of Hegel's own system? Do the Philosophies of Nature and Spirit (or Mind) follow from it; or are they rather, in some sort, presupposed in it? Elementary as these questions may appear, it may pretty safely be affirmed that any one who can answer them satisfactorily knows 'the Secret of Hegel'. The only answer to them that I shall here venture to suggest is that the Logic of Hegel is to be regarded as a kind of synthetic (or, in a certain sense, genetic) definition of Reality. It is an attempt to set forth, in systematic order and with systematic completeness, the various elements that are, from the nature of the case, involved in the existence of a real object of knowledge—the general conditions, as we might otherwise put it, of the existence of an intelligible world. Such a definition is evidently at once epistemological and ontological.[2] It defines at once the general principles of knowledge and the general conditions of intelligible reality. What has further to be done, in the Hegelian system, is then simply the application of these principles to the details of the actual world. It has to be shown how, even in the external world of nature, the general principles of intelligibility can be applied; though, at the same time, it is made to appear that nature by itself is not a completely intelligible reality, and that it is only in spirit or mind (which, however, implies the existence of the natural world) that such complete intelligibility is to be found. This seems to be the general significance of the Hegelian construction. The further question, how the Logic thus understood is related to the other Logics with which most people in this country are more familiar, has been perhaps sufficiently answered for English readers by the works of Mr. Bradley and Mr. Bosanquet.[3] These writers have shown that by the

[1] Prof. Wallace's contributions to this discussion will be found chiefly in the *Prolegomena*, chaps. xxi. and xxvi.

[2] *Cf.* Wallace's *Prolegomena*, pp. 167-70 and pp. 456-8. Also Notes to Translation, p. 394, Note to p. 51.

[3] *Cf. Prolegomena*, p. 370.

adoption of the larger conception of Logic, first systematically worked out by Hegel, it is possible to deal with the material of the ordinary Logics in a more philosophical and satisfactory manner than has been common in England. It is true, indeed, that neither Mr. Bradley nor Mr. Bosanquet has adopted the Hegelian conception of Logic in its entirety ;[1] but they have shown, in a general way, how the Hegelian conception is applicable to the ordinary Logics.

Supposing it to be granted, then, that we understand the general significance of the Logic, we next come upon the difficulty of the Dialectic. How is this to be understood ? Are we to regard it as a sort of intellectual Switch-back, in which we begin by placing ourselves at the point of view of Pure Being (reached by simple abstraction), and then, after being jolted up and down throughout the course of the Categories, find ourselves at last, not without astonishment, at the Absolute Idea ? Or is it rather the case that we start from the point of view of concrete knowledge, that we have this point of view present with us as an ideal throughout ; and that it is only in virtue of our being already, in a sense, at the end which we seek, that we are ever able to reach it ? We have to ask, in short, whether the method of the Logic is a purely synthetic one, starting from the barest abstraction, and being carried forward by the inevitable march of the Dialectic to more and more concrete conceptions, or whether it is rather analytico-synthetic, starting in reality from the concrete whole, and only going back to the more elementary abstractions with the view of unfolding a content which is from the first implicitly present. On the answer to this question depends, to a large extent, the importance which we must attach to the Dialectic Method. If the former view—the purely synthetic one—be correct, the whole process becomes one of the most vital importance ; one which we shall naturally regard with a certain awe, and even terror. For it is then a sort of mechanical movement by which thought is carried on in spite of itself, it knows not whither. But it seems tolerably clear that this is neither the way in which the process was conceived by Hegel nor a view that can be accepted as in itself correct. The process by which the ultimate definition of Reality is reached seems clearly to be one in which the idea of the end is presupposed throughout.[2] The idea involved is from the first —as is explained in Mr. Bradley's *Appearance and Reality*—that of an intelligible whole, coherent, self-consistent, systematic ; the

[1] If Mr. Bradley had adopted it, his *Principles of Logic* and his *Appearance and Reality* would have been combined (perhaps with some slight omissions) ; and the treatment of both would have been different. Mr. Bosanquet's work is somewhat more Hegelian ; but in some parts it is almost psychological instead of epistemological, and it lacks both the dialectic method and the complete systematisation of Hegel.

[2] *Cf. Prolegomena*, p. 368 *sqq.*

need of the Dialectic arises only for the exact definition of the content which such an idea involves. How necessary it is for this purpose is perhaps nowhere more apparent than in Mr. Bradley's attempt to do without it. But if its use is simply of this nature, it loses something of its mystic and awe-inspiring character. We can, in that case, view with tolerable composure the changes which Hegel made in his second Logic—which would have shown a fatal want of certainty if the method were to be taken as a rigid one. We can, in fact, regard the dialectic method as merely a highly convenient mode of exhibiting the relationships between the Categories[1] that are involved in experience; and we may, without abandoning the general principles of Hegelianism, regard it as an open question whether this method is the only one or the best one, or, supposing it to be on the whole the best one, whether it is at all points equally applicable. It might turn out to be the case that at certain points the relationships between the Categories take the form rather of a co-ordinate group than that of a series advancing in a straight line; and this fact would in no way interfere with the acceptance of the general view of Logic introduced by Hegel. If we view the Dialectic in this way, we shall cease to regard it as a Fetich; but, at the same time, we shall be far from regarding it as an unimportant element in the Hegelian doctrine. Indeed, we might still have grounds for complaint that the tendency in England, even among Hegel's disciples, has been too much that of treating him as a 'dead dog' in respect to his Dialectic Method. A searching examination of the foundation of the Method and the validity of the various steps in it is still a desideratum.[2]

This problem of the Dialectic is closely connected with another question—*viz.*, that with regard to the relation between the Logic of Hegel and the particular sciences.[3] If the Dialectic were to be regarded as a rigid process, carrying us forward by an inevitable law, it must be conceived as independent of the results of the particular sciences. If, on the other hand, it is only a method of bringing out the inter-relations between our fundamental conceptions, it may very well be the case that these fundamental conceptions are first brought into consciousness and receive definition from the investigations of the students of the particular sciences. Here again the latter view seems clearly to be that which is taken by Hegel himself.[4] It is true, indeed, that if this view be accepted, the function of philosophy seems

[1] Or *Denk-Bestimmungen*, as Hegel preferred to call them. *Cf. Prolegomena*, p. 388.

[2] Perhaps the recent articles by Mr. McTaggart in MIND may be taken as an indication that this want will shortly be supplied.

[3] On this point, see especially *Prolegomena*, chap. vi.

[4] See Translation, p. 20, *Prolegomena*, p. 273 *sq.*, p. 349, pp. 368-9, &c.

at first to be rendered somewhat insignificant. It is only, it might be urged, that of fitting together conceptions that have been already developed. But to urge this would involve a serious misrepresentation of the position that has been indicated. To deny that the Dialectic can work *in vacuo*, is not to affirm that it is simply determined by the data that are presented to it. Its attitude towards these data may still be a critical one, or even what Hegel himself describes[1] as the somewhat 'ungrateful' attitude of negation. Even if philosophy is dependent on the particular sciences for the materials with which it works, it is still true that it brings to these materials the ideal of a complete systematisation—an ideal with which the materials, as given, may be found to be incompatible. There still remains, therefore, for the philosophical investigator not merely the task of co-ordinating the materials of science, but also that of criticising and perhaps even that of reconstructing them.

The fact, however, that such problems as the foregoing naturally present themselves in connexion with the Logic of Hegel, shows the necessity for a preliminary discussion of the attitude of philosophy, prior to the working out of its details. The content of philosophy must not, as Hegel put it in his criticism of Schelling, be 'shot out of a pistol'. To prevent such a defect was one of the main objects of Hegel's *Phænomenologie*,[2] and also of the introductory chapters of his *Logic*; and I suppose it is the need of such a preliminary study that is also in the minds of those modern critics who insist on the need of 'Epistemology,' as prior to the study of Ontology. Without discussing here the propriety of this use of these terms, we may at least allow that it is important to have some discussion of the relation of science to ordinary knowledge, the relation of philosophy to science, and the general attitude of philosophy towards the world of experience, before any specific attempt is made to build up an ontological construction. And it is perhaps true that these preliminary discussions have not been given by Hegel with sufficient fulness. Hence it is probably a true philosophic instinct which has led most of our English Hegelians to find a basis for their position in the critical regress of Kant, rather than by going straight to Hegel's *Logic*. The same considerations may furnish an apology, if any apology is needed, for the fact that Prof. Wallace's *Prolegomena* to the *Logic* are longer than the *Logic* itself.

An ideal edition of Hegel's *Logic*, as I conceive, would begin with a discussion of the point of view adopted in the Hegelian treatment, probably considering at some length the relation of this point of view to that of Kant. It would then go on to discuss the method of the Logic and its relation to the other parts of the Hegelian system. Finally, it would furnish us with notes on some of the difficulties in the detailed treatment of the Categories. Judged by such a standard, the present edition

[1] See Translation, p. 21. [2] *Cf. Prolegomena*, pp. 167, 273, &c.

cannot be regarded as altogether satisfactory. The Notes at the end of the translation are rather scholarly than philosophical; and the *Prolegomena* are discursive and suggestive rather than exhaustive or precise. The volume containing the *Prolegomena* is dedicated to Jowett, of whom Prof. Wallace well remarks (p. xiv.) that "he saw life more steadily and saw it more whole than others: as one reality in which religion and philosophy, art and business, the sciences and theology, were severally but elements and aspects". One feels that this is to some extent descriptive of the spirit in which Prof. Wallace has himself worked. His treatment is large and broad, rather than definite and incisive. The specialist in philosophy may sometimes wish that he were reminded a little less of the late Master of Balliol, and a little more of the present one. The latter's work on Kant must still be regarded as the best introduction to Hegel. In comparison with this, Prof. Wallace's work certainly seems to be open to the criticism which he has himself suggested, "that the reader has been kept wandering too long and too deviously in the *Porches of Philosophy*" (Preface, p. ix.). Prof. Wallace has perhaps hardly sufficiently realised to what an extent the position of Hegel in England has been altered since (and partly in consequence of) the publication of his first edition. Hegel no longer requires to be introduced as a distinguished foreigner. He has, to a considerable extent, become at home among us. A certain general knowledge of his philosophical position, and even a partial acceptance of it, may almost be taken for granted among serious students. What is now required is rather a more detailed examination of his system and a carefully worked out vindication of the presuppositions on which his point of view appears to rest.

If, however, we accept Prof. Wallace's work in the spirit in which it has been written, and do not make demands from it which it was never designed to satisfy, there is little but praise to bestow on it—if, indeed, praise is not an impertinence. The arrangement is clear, the style graphic and luminous, the material rich and well matured. The most important addition to the *Prolegomena* since the first edition consists of a group of eight chapters (vii.-xiv.) on the historical development of philosophy up to Hegel. These additions will perhaps be of more value to the genuine philosophical student than any other part of the work. The addition of a chapter (xxiv.) on the transition from Substance to Subject is also noteworthy. On the other hand, the chapter (xix.) in the first edition containing illustrations from Greek philosophy has now been dropped. A more serious omission is that of chap. xxiii. of the first edition, in which a number of Hegel's technical terms were explained. Many students, I believe, will miss this concise statement of some of the more important Hegelian distinctions; though it is true no doubt that the explanations which could be given within such limits were

necessarily somewhat inadequate. But the rearrangement of the *Prolegomena* is perhaps an even more noticeable feature of the present edition than its additions or omissions. The whole is now divided into three books: i. "Outlooks and Approaches to Hegel" (including the historical sketch already referred to); ii. "In the Porches of Philosophy" (a general account of the Hegelian position in its relation to various other points of view); iii. "Logical Outlines" (a more special analysis of the Hegelian Logic). This rearrangement gives the whole work a more systematic form, and makes it altogether a more valuable introduction to the Hegelian system. Its chief value, however, seems to be still rather that of suggestion and illustration than that of scientific construction or criticism. For this reason it is difficult, if not impossible, to give any useful summary of its contents; and the philosophic student must simply be referred to the treatise itself, with the assurance that wherever he turns in it he will find, if not the precise thing that he is looking for, at any rate something that will be well worth reading. He will always find the overflowings of a full mind, the *obiter dicta* of a master on great subjects; more rarely perhaps the restrained utterances of one who has a definite truth to communicate and is anxious to go straight to the mark. It is the work of a scholar, one who has leisure, one who is not afraid of the hour-glass. *Sufflaminandus erat* is the worst that one could say of him: but there is "ever more in him to be praised than pardoned".

With regard to the translation, when we take account of the extreme difficulty of rendering Hegel into intelligible English, it is hard to see how the work could have been better done than Prof. Wallace has done it. To disentangle Hegel's pregnant sentences must have been often almost as bad as picking oakum. Prof. Wallace has occasionally allowed himself a little freedom in the expansion of difficult passages; but there seems to be less of this in the new edition than in the old. Another improvement is to be found in the more frequent use of italics to mark important words. Such emphasis is, however, still marked to a much less extent in the translation than in the original. I am not sure that the most precise rendering of Hegel's meaning has always been hit upon. Thus, in the very first sentence, it is not obvious why "unmittelbar von der Vorstellung zugegeben" should be rendered "on the natural admissions of consciousness": the original seems to imply the more exact meaning of a "direct presentation". In § 6 I do not quite know why the famous saying that "What is actual is rational" should have been turned into "What is actual is reasonable". In § 7 it seems strange to speak of "the mind and heart of man" as being "in direct and immediate contact with the observer" ("aus dem *präsenten* Geiste und der Brust des Menschen"). So also "intelligent national economy" does not seem a very happy rendering for "Staatswirthschaft der Intelligenz". In § 10 the words

"says Kant" do not occur in the original; and as Hegel seems to be somewhat misrepresenting the critical philosophy at this point, it is a pity to make his misrepresentation more explicit. Passing from this preliminary part to the body of the work, we find that the difficult passage at the beginning of § 236 has now been somewhat more successfully rendered. Instead of, "The Idea as a unity of the Subjective and Objective Idea, is the notion of the Idea, which the Idea as such confronts as its object, and to which objectivity is found in the Idea;—an Object in which all characteristics have coalesced," we now read: "The Idea, as unity of the Subjective and Objective Idea, is the notion of the Idea—a notion whose object (*Gegenstand*) is the Idea as such, and for which the objective (*Objekt*) is Idea,—an object which embraces all characteristics in its unity". But would it not be better to translate "Objekt" *object* (as is done in the following clause) and "Gegenstand" *material?*[1] In the next sentence, there seems a certain want of clearness in the rendering, "The Idea which thinks itself—and here at least as a thinking or Logical Idea". Would it not be better to say: "The Idea which thinks itself—and indeed (*zwar*) thinks itself here *as thinking, i.e.*, as *Logical* Idea"? Some other doubtful translations might be indicated; but on the whole the work, so far as I have examined it, appears to be singularly well done. Certainly Prof. Wallace has succeeded, to a quite wonderful extent, in making Hegel readable.

The introduction to the translation gives a full bibliographical account of the Encyclopædia. Would it not have been worth while to give us also Hegel's own prefaces? The Notes at the end are very learned, but consist chiefly in references. They are not designed, to any considerable extent, to clear up difficulties in the subject-matter. In connexion with § 10 one could have wished some discussion on the extent to which Kant's attitude has been rightly represented by Hegel. There might at least have been a reference to Caird's distinction between the attitudes of Locke and Kant.[2] This seems rather important; since it is to a large extent on this and similar passages that Hegel's rejection of Epistemology is founded.[3] But was it the critical regress of Kant, or only the psychological propædeutic of Locke, that Hegel really intended to reject? On this point one could have wished for some further light. In connexion

[1] The reason, I suppose, for the use of these two expressions is that even in the case of the Subjective Idea the material (*Gegenstand*) may be said to be the Idea. The subject-matter is *νόησις*. But in the case of the Absolute Idea the subject-matter is *νόησις νοήσεως—i.e.*, *νόησις* is here not merely the subject-matter, but also the object involved in that subject-matter. But the passage is a puzzling one, and seems to require a Note.

[2] *The Critical Philosophy of Kant*, chap. i.

[3] It is here, for instance, that the famous reference to Scholasticus occurs.

with the following paragraph, there ought surely to be a reference to Aristotle, *De Anima*, III., iv., 3, *ἀνάγκη ἄρα, ἐπεὶ πάντα νοεῖ, ἀμιγῆ εἶναι, ὥσπερ φησὶν Ἀναξαγόρας, ἵνα κρατῇ, τοῦτο δ' ἐστὶν ἵνα γνωρίζῃ.*

There is, as before, a useful Index to the Translation. It is to be regretted that the *Prolegomena* are not also provided with such a means of easy reference.

The volume on *The Philosophy of Mind*, which is entirely new, will be noticed in a following number.

J. S. MACKENZIE.

Pain, Pleasure and Æsthetics. An Essay concerning the psychology of Pain and Pleasure with special reference to Æsthetics. By HENRY RUTGERS MARSHALL, M.A. London: Macmillan, 1894. Pp. xxi., 364.

Mr. Marshall, whose ideas are to some extent familiar to readers of MIND, has evidently set to work in a serious spirit to re-consider the whole psychology of the feelings. His special interest in art, moreover, and his attempt to apply his theory of pleasure and pain to æsthetic experience, give a peculiar value to his volume. It may be added that while he has made himself acquainted with the perplexing variety of views developed by preceding writers, he manages to infuse a considerable freshness into his mode of treatment.

The book opens with a chapter on the psychological classification of pleasure and pain. The author objects to a restriction of the word 'feeling' to the pleasure and pain aspect of mental phenomena and prefers the term 'pleasure-pain'. He argues well against the position that pleasure and pain phenomena are a class of Sensations, and points out that Dr. Nichols and others who attempt this mode of classification have been influenced by physiological and anatomical rather than by psychological considerations. This, by the way, looks like one more illustration of the fact that psychological classification has received but very little aid from physiology. When, however, Mr. Marshall goes on with equal elaboration of argument to oppose the doctrine that pleasure and pain fall under the head of Emotion, he strikes one as taking unnecessary pains. To say as Spencer or Bouillier that Emotions are made up of elementary pleasures and pains is not to say that these are to be classed with Emotions. What the writer seems to be aiming at here is to show that pleasure and pain are not specially bound up with either Sensation or Emotion, or exclusively found in the two fields taken together. They are to be found in the field of ideation or intellection as well. He proceeds to discuss the question how we are to conceive of the relations of pleasure and pain to these several varieties of psychosis. They may be either elements, whether

fundamental as Horwicz and others say, or first induced by these psychoses, or they may be *quales*, "which may arise with all psychic elements, special qualities common to all mental phenomena". The author decides for the latter view and seems to put pleasure and pain on a level with intensity as a possible *quale* of all psychic phenomena. This is clearly going to the opposite extreme of the current view that feelings of pleasure and pain are a variety of psychosis, a unique form of consciousness, however closely dependent on and bound up with other constituents. Popular thought and language are a long way from this point of view, and Mr. Marshall seems to say at the beginning of his volume that psychology has to build itself upon, and I suppose to keep in touch with, this common knowledge of mind. Some of Mr. Marshall's arguments in favour of his hypothesis that pleasures and pains are not elements, seem to me a little weak, as when he says that to suppose them to be elements is to fall into the exploded error of the faculty psychology. As well might one accuse Mr. Marshall of falling into this error when he talks about representations or instincts as distinct varieties of psychical phenomena. He is happier I think when he contends that it is difficult to conceive of the special organs of pleasure and pain and of their relation to the organs of Sensation. But the whole of this chapter might be made a good deal clearer. That pleasures and pains are bound up with and immediately conditioned by certain features of our sensations and ideas is certain: but this does not prove that they are merely a variable quality or aspect of these. The bearing of the state of attention on the pleasure and pain tone of presentations, a point emphasised by Dr. Ward, would of itself serve to show the inadequacy of this view and suggest that pleasure and pain always involve relations of the sensation or other 'content' to the whole state of consciousness of the time.

In chapter ii. the writer discussed the nature of Emotion in order to define its relation to pleasure and pain. Emotions, as with Prof. James, are conceived of as instinctive reactions. Mr. Marshall does indeed stop short of identifying them with movements and calls them instinct-feelings. He seems, moreover, to concede in places that the active motor element is non-essential, as when he distinguishes 'dread' as a passive state from the active state of fear. At the same time the general mode of treatment is quite in Prof. James' manner. He attempts, as Dr. Mercier and others have done, to classify the Emotions as reactions by reference to certain advantageous and disadvantageous circumstances in the environment to which they are responses. But, as we see in Mercier's scheme, this principle is only of use in dealing with those well-differentiated forms of Emotion which are animal and instinctive. It fails to give any idea of the Emotional field as it appears in man. Nay, more, it fails to do justice even to the variety of feeling of animal life.

Thus an emotion so simple and universal as the disappointment of expectation finds no place in Mr. Marshall's sketch. The attempt to include higher and more intellectual Emotions, more particularly the Æsthetic, is, I think, a little forced. According to Mr. Marshall the art-impulse is the outgrowth of the instinct to attract others. The man who produces a beautiful object does so in order to attract by means of this. This idea wants, I suspect, a little re-consideration in the light of ethnological facts. Is not a good deal of early adornment of the body manifestly meant to repel or terrify rather than attract? However this be, the art-impulse, even in its incipient forms, probably includes other factors, such as the play-impulse and the impulse to body forth some idea, the same impulses which set children, and certain at least of the lower races, drawing, without the slightest discoverable trace of a wish to please. With respect to the relation of pleasure and pain to Emotion, the writer seems to go too far in separating the quality of an Emotion from its pleasurable or painful aspect. No doubt fear is a psychosis differentiated largely by the complex of sensations which enter into it. But then this complex in itself, together with the ideational activity and the attitude of attention involved, of which Prof. James and Mr. Marshall take no account, has its very decided painful aspect, so that to talk of fear which was not disagreeable would, I think, seem to the plain man sheer nonsense, and this in spite of the fact that a kind of fear has its place in the effects of art.

We may pass by for the present a chapter on "The Field of Æsthetics" to say something about the writer's theory of the physical basis of pleasure and pain. Under the chapter thus entitled the author deals with pleasure and pain as psychophysical phenomena. He argues against the hypothesis that pleasure and pain involve not merely a particular condition of the organ primarily excited, but a particular condition of the whole organism. Agreeably to the view that pleasure and pain are varying qualities of definite mental contents, we have to conceive of the physiological correlative as a varying condition of the particular organ concerned. This varying condition is sought, as by other psychologists and physiologists, in the accumulation of energy in nutrition and its expenditure in functional activity. The law is expressed as follows: Pleasure is experienced whenever the physical activity coincident with the psychic state to which the pleasure is attached involves the use of surplus stored force. Pain is experienced whenever the physical action which determines the content is so related to the supply of nutriment to its organ that the energy involved in its reaction to the stimulus is less in amount than the energy which the stimulus habitually calls forth. The first part of this is altered later on by the addition of the words: "Whenever the energy involved in the reaction to the stimulus is greater in amount than the energy

which the stimulus habitually calls forth". This way of looking at the matter is, I suspect, open to a line of criticism similar to that which the author applies to other theories. It is obviously as hypothetical as any of the psycho-physical theories. Again, though like other theories of the kind it may be on the right track in connecting the changing pleasure-pain tone with the varying condition of the organ, it strikes one as having a fallacious appearance of exactness. What it aims at doing is to determine the action of an exhausted structure, that is to say, excessive and consequently painful action by a reference to a habitual strength or energy of reaction. But this is manifestly insufficient for a theory of pain as connected with fatigue. Such fatigue may come on in one of two ways, either by persisting in a moderate amount of stimulation or by raising the intensity of the stimulus to a super-normal point. The reference to the habitual response is intelligible in relation to the former. The limbs jaded at the end of a long climb respond with diminished energy. But what meaning has this reference in the case, say, of raising the luminous stimulus to the blinding point? Mr. Marshall's psycho-physical theory of pain is defective by considering merely the condition of the organ as ill-nourished or exhausted, and not the amount of stimulus as having a constant and permanent relation to the capacities of the organ. Similarly with the condition of pleasure. To say that pleasure ensues when the organ is preternaturally fresh, and as a result of this the response to a given stimulus exceeds the habitual degree of energy, is not so much to lay down the conditions of pleasure in general as to point out one factor in the higher intensities of pleasure. Surely habitual reactions of a moderate amount, as for example when we exercise the auditory organ in following a long musical composition, have their modest *quantum* of pleasure. But this is only one factor. The increase of stimulus, the state of the organ being assumed to remain unchanged, will (within certain limits) cause greater pleasure by exciting greater activity. This shows, I think, that Mr. Marshall's theory wants at least a good deal of further development and explanation. It may be added that the pains of craving which Mr. Marshall deals with in an interesting way, as involving a restriction of physical activity, do not seem to fall naturally under his general formula. In conclusion, it may be said that like other theories which refer pleasure and pain to quantitative conditions only, Mr. Marshall's theory seems to me to fail by not taking adequate account of the formal or qualitative conditions. But this can only be done by bringing into view the complexity of the organism, and this our author steadily declines to do. The only exception to this abstract treatment of the actions of isolated organs is where the writer shows that the pleasures of repose are due not to the processes of nutrition in the exhausted organs, but to the increase of activity in other organs.

In a work that is concerned with the large and perplexing subject of pleasure-pain we cannot look for a complete examination of æsthetic pleasure. The two chapters which Mr. Marshall devotes to the subject, ch. iii., "The Field of Æsthetics," and ch. vi., "Algedonic Æsthetics," are interesting and suggestive both as special applications of his general conception of pleasure and pain, and as throwing new light here and there on æsthetic problems. For Mr. Marshall, the real differentia of æsthetic pleasures is their comparative permanence or revivability. According to this view (if I understand it) a feeling only has æsthetic value when we can revive it afterwards. I can only say that if this theory is just it would destroy much of my own æsthetic experience. For me it is the pleasure of the actual presentation, of seeing the picture, and of hearing the music, which is of real account: the subsequent revival of it is too uncertain. It seems a little paradoxical to say that the artist aims not at a pleasurable presentation, but rather at a presentation which when recalled shall contribute pleasure. Our recallings of beautiful things have no doubt their own enjoyment: but I suspect that the plain man never confuses this with the primary and immediate enjoyment of art. The only truth which I can find in this odd conception of the æsthetic field is that in the direct presentment of art much of our pleasure, as has been shown by Fechner and others, is due to revived presentation, *e.g.*, in the appreciation of architectural lines and their groupings.

Mr. Marshall is, I think, more successful in applying his theory of pleasure to some of the well-recognised effects of art. He seems to me to be particularly happy in distinguishing between negative and positive æsthetic laws. As Gurney clearly showed much of what goes by the name of principles of beauty merely formulates the limits within which presentations must move if they are not to be disagreeable. Mr. Marshall, unknowingly as it would seem, takes up and elaborates Gurney's idea, and shows that much that is meant by harmony, truth, and so forth, owes its æsthetic value to the importance of avoiding a shock to our habitual lines of mental activity. But perhaps he is disposed now and again to push this idea of avoidance of the disagreeable too far. Does not fine colour combination, such as that of Burne Jones at his best, owe its value to certain positive conditions and not merely to the avoidance of repressive pain of shock? It is quite consistent to recognise the fact that we are "in a world of harmonies which give us no æsthetic result at all," and to say that the combinations struck out by genius have in them a positive effect of a high æsthetic value, even though we may not as yet be able to give the precise law of these positive effects. The rejection by Stumpf and others of Helmholtz's negative theory of musical harmony suggests that the effect of æsthetically fine combinations cannot be wholly referred to the exclusion of the disagreeable. I would suggest to Mr. Marshall that the ugly

offends us not merely by way of repression as he shows, but by way of excess of activity. There is a fatiguing and painful effort to grasp and assimilate the anomaly, the monster. I cannot quite follow him, too, in his theory of the effect of the ludicrous. As I understand him it depends on a sudden transition from an unnatural and strained to a habitual mental activity where the same quantity of energy will produce greater effects. This certainly wants illustration. It may help to explain some of the effects of laughter, though I cannot see how it can account for all. But I must bring this criticism to a close and express my obligations to the writer for much that is stimulating and suggestive in his book.

JAMES SULLY.

Le Problème Moral dans la Philosophie de Spinoza et dans l'histoire du Spinozisme. Par VICTOR DELBOS. Paris: Felix Alcan. 1893. Pp. xii., 569.

It is satisfactory to find in the first half of this work full justice done to the essentially practical character of Spinoza's philosophy. The author shows with much sympathy and insight the connexion of the philosopher's system with his circumstances and personality. To the Cartesian Jew, he says, it seemed that speculative effort ought only to be exerted to satisfy practical needs. But since he thought that the full satisfaction of desire was possible only in the knowledge of truth, the nature of God and Man must be investigated, and thus the moral problem became a metaphysical one. Accordingly, M. Delbos expounds with great skill and mastery the ontological and scientific doctrines which are a preparation for the ethical, and meets with much ingenuity and resource some of the difficulties that beset Spinoza's argument. He exhibits, too, very justly the close connexion that exists between the *Ethics* and the *Political* and *Theologico-Political Treatises*. The development of the individual and of the state are alike conceived of as natural and necessary. The strife of the passions, which reduces a man to misery and weakness, provokes a reaction of his essential tendency to persevere in being, and this carries him from illusion and slavery to reason and liberty. The same strife of the passions of individuals in the state of nature, renders them all feeble and wretched; so that the instinct of self-preservation urges them to form a society, which again by a natural progress tends to civil liberty. Thus Spinoza's theory of society is one aspect of his theory of the universe. An exposition of his doctrine of the intellectual love of God and of eternal life completes this first part of the book (217 pages).

In his second part M. Delbos traces the influence of Spinoza upon subsequent speculation. He has had no distinguished pupils, but many students; and we find here a very full and

instructive account of how his thought has leavened the mind of Europe in Holland, Germany, England and France. His power has been greatest in Germany, least in this benighted land. Four pages dispose of our relation to Spinozism, and the greater part of these are designed to show how entirely it differs from Mr. Spencer's system. Until recently in fact Spinoza was rarely mentioned by English authors except in the language of antipathy. Berkeley's treatment of him in the *Minute Philosopher* shows that the bishop lacked one virtue, the power of discerning a soul of goodness in opinions heretical; and Hume's well-known gibe implies that the infamous one had no chance of being understood. But 250 pages are needed to show how Spinoza influenced all the greatest names in German literature. Successive chapters treat of Lessing, Herder, Schiller and Goethe, the Romantic School, Schleiermacher, Schelling, Hegel. The chapter on France deals chiefly with Taine.

After reading M. Delbos' eloquent and learned volume with much pleasure and instruction, it seems ungrateful to express any dissatisfaction with it; but alas! a reviewer grows accustomed to harden his heart. It seems that M. Delbos is enamoured of a sort of transcendent Idealism; and in his anxiety to bring Spinoza as near the fire as possible he falls into several misinterpretations. Naturally these are most conspicuous in his treatment of the fifth part of the *Ethics*. As to eternal life, for example, since, according to Spinoza, the soul is the idea of the body, and imagination and memory are other aspects of bodily modifications, these of course perish with the body; and so much our author admits. But then Spinoza tells us that something of the mind, expressing the essence of the body under the form of eternity, is eternal and survives the body; and this something according to M. Delbos is the individual Reason. For, says he, this eternal essence makes the body such as it is, "c'est l'essence de tel ou tel corps humain, *hujus et illius corporis humani*. D'où il suit que l'essentiel de notre individualité est véritablement et éternellement fondé en Dieu; ce qui nous explique et ce qui nous sert à expliquer les choses n'est pas séparable de nous-mêmes: nous sommes de toute éternité des Raisons individuelles" (p. 193). This seems to mean that a man's Reason is a perdurable entity. Now whether this doctrine is Spinoza's is a question of some verbal delicacy, partly from the imperfection of language, partly from some want of care on Spinoza's part. He tells us that under the form of eternity things are conceived without any relation to time (ii. 44). Again, eternity like substance has no parts, and therefore the phrase "de *toute* éternité," suggesting duration, seems improper. I will not venture to say that Spinoza never speaks of *all* eternity. But even where Mr. Elwes translates "from *all* eternity and for *all*[1] eternity," the original has only "*ab æterno et in æternum*" (i. 17).

[1] The italics, of course, are mine.

This may seem a trifle, but its effect in such a delicate matter is considerable. Spinoza himself says that something of the human mind remains (*remanet*), which is eternal; and the word '*remanet*' seems to imply duration; but he immediately explains that he does not assign to it duration (v. 23). Again, the expression "*Raisons individuelles*" seems to suggest something inconsistent with Spinoza's position that Will and Understanding are nothing else than the sum of particular volitions and ideas. Accordingly, Spinoza's doctrine of the eternity of some part of the mind may be understood thus: Every act of pure understanding conceives things in necessary relations, and necessary relations involve no point of time (ii. 44): as we commonly say that a law of nature is equally true at all times. We must in this way conceive the essence of the body as a certain modification of extension, necessarily following therefore from the Divine nature. Such an eternal conception is the condition of all intuitive knowledge of particular things, as belonging to the essence of God. Whoever exercises this power most knows most of himself and of God (v. 31). The more acts of understanding under the form of eternity a man accomplishes, the more his life is eternal life.

A similar exaggeration occurs in M. Delbos' general characterisation of Spinozism: "Il est un idéalisme, puisqu'il établit à l'origine, par la définition même de la 'cause de soi,' l'identité de la pensée et de l'existence, de l'Etre rationnel qui est en soi et de l'Etre réel qui est par soi. Seulment il est un idéalisme concret," &c. (p. 200). It is true, and Sir Frederick Pollock has shown, that Spinoza admits of idealistic interpretation; since not only thought, but every Attribute is perceived by the intellect as constituting the nature of Substance; but he is far from thinking that such an interpretation truly represents Spinoza's meaning. Spinoza always assumes that a clear concept answers for the reality of what is conceived, and believes that the infinite Attributes have their own rights (if I may use the expression) equally with Thought. God is as truly an extended thing as a thinking thing. By Himself, indeed, as Substance, He is no more a thinking than an extended thing; if intellect belonged to the eternal essence of God it would have nothing in common with human intellect but the name (i., xvii.): so that He is often spoken of "so far as He is a thinking thing". Such a phrase as the "infinite intellect of God," to be sure, is likely enough to mislead: but we are often told that an idea in the human mind exists also in the Divine mind, and conversely; not that there are two similar ideas, but that the same idea may be considered in both ways. In fact the Divine mind is nothing but the Attribute of Thought discriminated into Modes, corresponding to the Attribute of Extension differentiated into bodies by Motion and Rest. And the Modes exhaust the Attributes; there is no Divine, any more than a human understanding besides the ideas. The order of

ideas, too, is in both intellects the same, namely, that of cause and effect, according to the order of Modes of Extension. And the Divine self-consciousness is the self-consciousness of human minds, consisting in ideas of ideas: not a second sort of ideas (for else there must also be in Extension a circle of a circle, &c.), but the special perfection, reality, or distinctness of ideas that go with a highly complex and impressionable body when the passions are subdued. If this account of the matter is correct, Spinozism is far from being an Idealism. Perhaps if Spinoza's theory of self-consciousness had been worked out more fully, it would have led to the result that all consciousness is self-consciousness so far as it has reality, even in a stone; and some reality must pertain to every Mode of it. By the way, what the idea of a stone is in a stone, Spinoza has not told us, and perhaps he did not know. There seems no reason to suppose that it is like our idea of a stone, for that is in fact only the idea of our own body as modified by a stone. The idea in itself of a circular thing (say a cheese), considered as animated, may be nothing like our idea of a circle.

Other examples of a certain tendency to exaggerate what some would call "the higher side" of Spinoza's doctrine might be adduced from our author's treatment of the intellectual love of God, of God's love of Himself, and of freedom as attainable by wisdom; and although in each case there may seem to be little harm done, yet the effect on the whole is to smudge the outline of historical truth. To modernise the philosophers of a former age, and show that with a few changes of expression they thought the same as we do, is tempting but hazardous. To show that it is all in Zoroaster gratifies our sympathy, our love of simplification, our desire to enlist on our own side the authority of antiquity; and it is excused by the profound resemblances of systems in all ages. There is a certain form of eternity in the history of thought. But, after all, history deals with existence as well as with essence; and to invest an old doctrine with the fashions of to-day is to make it not more but less intelligible, by removing it from the circumstances which determined its special character. At the same time our own thoughts are falsified: by representing them as only a renewal of former speculations we hide their real causes. For, however they may be related to ancient systems, their special character likewise depends upon present conditions, upon the strife between what we feel driven to do or think and the wishes of distracted humanity. Spinoza in his own day always decided against our wishes: what would he now do?

It is sometimes not a little odd to find Spinoza's thought concatenated and developed by a sort of Hegelian dialectic. It is not clear, for instance, how the philosopher conceived that Eternal Substance produces infinite Modes determined in time. But M. Delbos thus helps him over the stile: "On peut soutenir qu'il y a, selon le spinozisme, une dialectique interne de l'Etre. L'Etre est

d'abord posé en soi dans une sorte d'identité formelle et purement négative. . . . Mais précisément parce qu'il s'oppose à toute determination externe, l'Etre tire de soi son principe de réalisation; il tend pour ainsi dire, à se remplir. . . . L'existence est donc fondée sur la nécessité de concevoir dans l'eternelle vérité à la fois ce qui est le même, et ce qui est autre," &c. (pp. 214-5). Could anything be farther from the thought of the Cartesian Jew? M. Delbos not infrequently embellishes his page with such seductive Teutonisms and then sums the matter up in plain French: in which idiom the meaning is much clearer but somehow less impressive.

Not that he is an Hegelian: he has climbed upon Hegel's shoulders. "Mais précisément parce qu'elles se produisent au terme de tout un développement philosophique, la méthode et la doctrine hégélienne pouvent être interprétées, soit dans le sens des pensées antérieurs qu'elles achèvent et consacrent, soit dans le sens de pensées nouvelles qu'elles suscitent et aident à se produire. Elles pouvent, elles aussi, se transformer en leur contraire," &c. (pp. 559-60). And so poor Hegel is hoist with his own petard. Apparently if M. Delbos has his way our wishes will greatly determine our thoughts, whether about the history of philosophy or about our own powers and destiny; so that in spite of the very great merits of his book, the reader who considers its tendency to exaggerated expository statement, to indeterminate and transcendent doctrines, and to a somewhat rhetorical eloquence, may sometimes fear that he perceives the recrudescence of a belated Cousinism.

CARVETH READ.

O. KÜLPE. *Grundriss der Psychologie auf experimenteller Grundlage dargestellt.* Leipzig: Wm. Engelmann, 1893. Pp. viii., 478.

This is a critical account of the results of the experimental method in psychology rather than an attempt to construct a system on the basis of those results. Psychology is regarded as an inductive descriptive science, differing from other sciences in the dependence of the experiences it describes on the experiencing individual. Dr. Külpe is chief assistant to Prof. Wundt at the Leipzig Institute, and his line of thought tends strongly to coincide with that of his teacher, but the deviations are frequent, and the book is much more than an abbreviated "Grundzüge der physiologischen Psychologie".

In the general arrangement there are several interesting features. The first part deals with elements of consciousness, the use of the term "element" being avowedly based on chemical analogy. The elements are divided into sensations and feelings; the former again into peripherally and centrally excited sensations, the subjects of memory and ideation coming under the

latter head. The second part treats of the connexions of elements, and these are divided into two groups, fusions (*Verschmelzungen*) and conjunctions (*Verknüpfungen*). In the chapters on conjunction of elements the spatial and temporal relations of mental phenomena are considered as a whole. This arrangement has much to recommend it, but the treatment of the extension and duration of sensations, apart from their other properties, has some disadvantages. In the present case the phenomena of colour vision are considered in three different parts of the book, the important relations of tone and brightness coming under fusion, and the subject of contrast as depending on spatial and temporal relations under conjunction. The third part is entitled, "On Conditions of Consciousness," and is concerned mainly with attention. The anatomical and physiological details and the full descriptions of apparatus which make up so large a part of Wundt's book are omitted or treated very briefly.

In the chapters on sensation the special psycho-physical methods are fully considered, and there is a valuable discussion of the conditions of psychological experimentation; in fact, the author appears at his best when dealing with the difficulties and dangers of this process. In his account of the various senses Wundt is followed fairly closely and there is little which requires special mention. The observations of Blix and Goldscheider on temperature spots are rejected on the authority of Dessoir and because improbable on theoretical grounds; the latter reason does not seem quite worthy of the author. Fechner's psycho-physical explanation of Weber's law is decisively rejected, but the author does not regard the evidence as sufficiently conclusive to enable him to decide between the other explanations which have been advanced.

In the next division of the book, the customary term "memory image" is discarded in favour of centrally excited sensation. The notion that these central elements are only weakened percepts, or, in the author's language, renewals of the peripherally excited sensations, is regarded as having its only basis in the frequency with which it has been repeated by English psychologists and philosophers. The all-sufficiency of association is also vigorously combated, chiefly on the grounds of the spontaneous origin of ideas and of the occurrence of mediate reproduction without an association of the reproduced and reproducing ideas having taken place. The appearance of a centrally excited sensation is regarded as dependent on general conditions, such as attention and feeling, and on certain special conditions. These are of two kinds, motives of reproduction and sources of reproduction (*Reproductionsgrundlagen*). The motives comprise the relations generally known as associations; when following the sensation α, the central sensation β arises, α is the motive for β. The sources of reproduction are peripherally excited sensations which must

have existed in order that similar centrally excited should occur.

Feeling is regarded as a primary and independent element of consciousness, and the view that it is to be looked on merely as a property of sensation—the feeling tone—is rejected. Dr. Külpe recognises only two qualities of feeling proper, and sees in emotion a basis of one or other of these combined with organic sensations to which the emotion owes its special colouring. The question of an elementary feeling common to impulse, desire and will is considered, and the author sees in all three a common phenomenon closely related to feeling which he calls striving (*streben*). This common element is supposed to be a complex of organic sensations arising from tension of joints or tendons, partly of peripheral and partly of central origin. The central elements would correspond closely with the "feelings of innervation," but the use of this term is avoided as easily liable to misunderstanding. The large mass of experimental evidence on the physical accompaniments of feeling is held to point to the concomitance of heightened cerebral activity with conditions of pleasure and of lowered activity with conditions of pain.

The second part deals with the connexions of the three classes of elements. Of the two groups of connexions, fusions are those in which the qualities making up the complex are so blended together that they lose their individual character, fusion of tones being taken as the typical example. In conjunction, on the other hand, the individual qualities do not lose, or may even gain, in distinctness and may be easily recognised in the complex, colour contrast being the typical instance.

In the section on fusion, the emotions are more fully considered. The author does not regard a satisfactory classification as possible, but suggests as a basis the relative shares taken in the fusion by organic sensations and by feeling proper respectively. One end of a classificatory series would be formed by those emotions in which the organic sensation element is in excess; objective emotions such as surprise and expectation. At the other end would be those emotions in which the feeling element is more prominent; subjective emotions such as joy and sorrow. Fear, which may be regarded as a painful expectation, would occupy an intermediate position.

Under the heading conjunction (*Verknüpfung*), the subjects of space and time are considered. Dr. Külpe distinguishes between spatial properties and relations; all sensations may have the latter; only visual and tactile sensations the former. Extension is the elementary factor of all spatial properties; distance, of all spatial relations. The localisation of the right and left sides of the body is held to afford the most serious objection to Lotze's doctrine of local signs, though the phenomena of metamorphopsia are regarded as very strong evidence of local signs in the case of

vision. Wundt's complex local signs are held to be more satisfactory than those of Lotze, but since these are fusions of sensations of movement with simple local signs, it seems hardly justifiable to apply Lotze's term to them. Hering's views on this subject are dismissed at once as unpsychological and unphilosophical. They have not been treated in so superior a manner by Stumpf and James, with whom the author concludes by finding himself most nearly in agreement. While regarding the semicircular canals as organs for the maintenance of bodily equilibrium, the author holds that it is very doubtful that they give rise to spatially interpretable sensations, our estimation of position of the body depending rather on sensations having their origin in the joints and skin. We should thus have one kind of peripheral apparatus for maintaining equilibrium and another for appreciating it!

The parts of the book dealing with time are especially valuable. Külpe agrees with Meumann in depreciating the shares taken in the estimation of intervals by sensations of muscular tension on the one hand and by expectation and surprise on the other. The section on reaction time is very short, but is an excellent *résumé* of the experimental work on this question. The various difficulties attending the measurement of the compound forms are well estimated, and the results given seem rather a small return for the vast amount of work expended on this "Lieblingsgegenstand," as the author calls it.

The third part is short and devoted mainly to attention with sections on will and consciousness, sleep and hypnotism. The term 'Apperception' is adopted as signifying a process common to attention and will. This process is compared to the physiological function of inhibition, and, following Wundt, the physiological processes underlying it are supposed to take place in the frontal lobes. In support of this localisation several developmental and anatomical arguments are advanced. This localisation of so universal a process as Wundt's apperception in any limited area of the brain is open to the gravest objections and draws attention to what must be regarded as the weakest aspect of the whole book, *viz.*, its attitude to physiological problems. It has been a subject of reproach against physiologists that they have occasionally taken refuge in psychological explanations when their physiological resources have failed them. The author on the contrary seems to look on the dark corners of physiology as a means of escape when his psychological ingenuity reaches its limits. The section on the theory of centrally excited sensations is little more than an attempt to explain what the psychological factors have failed to explain by having recourse to vague physiological assumptions. This is to a certain extent the logical outcome of the author's standpoint that psychology has only to do with conscious processes; one is frequently reduced to the

dilemma of having to seek an explanation either in unconscious mental processes or in purely physiological processes. The author's confusion between physiological and psychological explanations cannot however be wholly ascribed to this difficulty. After considering Purkinje's phenomenon in the light of certain physiological theories Dr. Külpe goes on to say that it is nothing but a phenomenon of fusion, "that red and yellow are relatively bright, and blue and green relatively dark colours, means in my opinion that the impression of yellow and red influences the conception of the pure brightness components so that their quality appears to be increased, while green and blue change the apparent brightness in the opposite direction". The author here advances a purely psychological explanation of the phenomenon and naïvely says that in this way he avoids the physiological and physical difficulties which encumber the explanations of Helmholtz, Hering, &c. Again in the section on feeling, the theories of Meynert and Wundt are criticised and compared. One is a purely physiological, the other a purely psychological theory. The author is also inclined to seize somewhat uncritically on "new physiological discoveries," such as that of centrifugal sensory nerves which is used to explain hallucinations and other phenomena. It must be acknowledged that here the author is only following the lead of Wundt.

The many good qualities which the work possesses, however, far outweigh these defects. It is not too much to say that it is the best text-book of experimental psychology which has been written.

VIII.—NEW BOOKS.

Conscience. An Essay towards a New Analysis, Deduction, and Development of Conscience. By Rev. J. D. Robertson, M.A., D.Sc. Vol. i. New Analysis of Conscience. London: Kegan Paul, Trench, Trübner & Co., Limited, 1894. Pp. xvi., 175.

The novelty in this essay consists chiefly in its terminology. It is always a misfortune, both for the author and for his readers, when the former finds it necessary to introduce a new system of terms; and when the terms which he selects are such as are already familiar in other connexions, the task of interpretation which has to be gone through before it is possible to get understanding is one which few will be willing to undertake. There is far more of definition than of analysis in the volume before us, and though this disproportion may be partly due to its being only the first of two, yet we are left at the end with an uncomfortable sense of having dealt rather with words than with facts. Take for instance the naming and classification of the activities of conscience in ch. iii. We have first a distinction between the moral sense and the sense of duty; then the former is divided into emotional judgments which are merely declaratory and those which are judicial; while the latter is broken up into premonitory impulses, and prescriptive judgments and sentiments of obligation. This is to bring confusion into an already obscure subject. It is true that much pondering enables us to trace the line of thought followed by the writer, but the light which we get in this way merely reflects the workings of his own mind, and does not help us to any clearer idea of conscience. We find a striking instance of this devotion to words when Mr. Robertson goes on to explain his reason for adopting the term "sense of duty" in this application. "In sound, as well as in meaning," he tells us, "it is supplementary to the moral sense, or rather, the one is the complement of the other. The word sense is common to both and the prepositional adjunct 'of duty' corresponds to the adjective 'moral'." If there is no better justification for the use of the term than this, it had surely been better left unused.

When we break through the outer shell of style and language we find ourselves confronted by old problems under new names. We do not think Mr. Robertson is fortunate in his preliminary analysis of conscience. To most of those who are seeking to know themselves, conscience appears now as a perplexing abstraction, now as a phantom will o' the wisp; leading them on with momentary flashes of brightness when they give no particular heed to it, but fading indistinguishably into the other constituents of consciousness when they try to fix it with a steady gaze. An analysis which should succeed in grasping the reality and holding it firmly before us until we knew it for what it is, would be a welcome addition to the literature of Ethics. But we think we shall not be alone in failing to recognise in the phenomenon here described the troublesome perplexity with which we are familiar; what is analysed is rather the conscience of the moral story-book than of every-day life. For instance, we are told (p. 13) that "we no sooner perceive and do the right than it yields pleasure, while the wrong brings forth pain and instant wounding of the heart". This may be true of the moral saint who has won his battles, but hardly of the warrior who has them still to win, still less of the unheroic many, who yield but a grudging ad-

herence to the troublesome monitor which is always thwarting them, and to whom it does not occur to have the compensating glow of righteousness. Or again (p. 15), "When we are about to do something which we may or may not do we have an emotional consciousness, as immediate as it is involuntary, that among the motives which seem to contend within us, some are moral and good, some anti-moral and bad"; and again on p. 39, "All that is necessary is that two incompatible impulses or opposing motives should come up together, then one or other of them is transfixed as evil and wrong". But if this were so, life would be much simpler than it really is; it is one of the common experiences of ordinary man to be confronted by an alternative where the conscience refuses to give a verdict, and when—as sometimes happens —the judgment also declines, the experience is familiar as a very painful one. It is perhaps unfortunate from one point of view that writers of ethical treatises are generally men who have reached a high stage of moral development; they are apt to lose sight of the stages which they have left behind them, but from which most of the practical problems of life have to be solved.

The real strength of the book lies in its discussion of the old question of the respective parts played by Reason and Feeling in the moral life, though even here we do not think that the author's own position is made quite clear. In the earlier part of the treatise stress is laid rather upon the emotional than the rational aspect of conscience. Conscientious persons are defined as those who are "specially tender in their moral susceptibilities, and whose moral emotions are therefore both full and frequent; their "moral impulses are stronger, and the resulting sentiments of obligation have more force over their willing" than is the case with others. It is not "fulness of moral knowledge" which characterises conscience, since a man's ideas may be abundant and clear upon ethical subjects without his being reputed conscientious (we admit the theoretical possibility, but would not such a man be a moral monster such as is realised only in the villain of the melodrama?). By thus accepting emotional susceptibility as the main feature in conscience, the problem as to whether Reason as such can be a motive to action is avoided; but we do not see that Mr. Robertson succeeds in differentiating his view from that which he calls the æsthetic. He reduces the moral judgment to a question of feeling: "the judgments embodying the moral law are delivered either in the moral susceptibilities or moral impulses": but finds the leading characteristic of conscience in the fact that these susceptibilities and impulses tend to action, are "practical". This is, of course, true; but is it not equally true of any theory that insists on the æsthetic rather than the rational aspect of conscience? the difficulty would be to find susceptibilities and impulses which did not tend to action. From the point of view of morality, however, it is doubtless important to emphasise the fact that conscience tends to have a practical influence on life.

But though the leading part is at first assigned to the emotional aspect of conscience, the rational element forces itself to the front later on. "When we analyse more minutely what takes place, we find there is and must ever be an inference. . . . Before every decision of will there is a comparison of the motive or act with a standard within the moral sense, and a declaration of its agreement or disagreement with it." It is the immediateness of the judgment in conscience which characterises it, and this, taken in connexion with its involuntariness, constitutes what is known as the intuitive self-certainty of its activities. This seems to us excellent, but when Mr. Robertson goes on to say that this means, that "we know good from evil with instantaneousness and certainty

whenever they appear together in consciousness," he seems to us to ignore both the facts of daily life and the fallibility of human judgment. Our inferences are certainly not less liable to error because they take place instantaneously; the very fact, that the intermediate steps in the process of judgment are lost sight of, makes this form of self-deception the more insidious. For the ideal of a conscientious man as held up to us by Mr. Robertson, the man of strong susceptibilities and emotions, we should like to substitute one who would take the trouble to make explicit the inference implicitly involved in his moral judgments, who could give a reason for the faith that is in him.

The second part of this volume discusses the nature of the moral law, or of the "constitution" of the activities of conscience, which is defined as "the sum of the ideas or conceptions by means of which moral differences are apprehended and moral demands imposed upon the will". This constitution is divided into the formal and material, and a section is devoted to the expounding of each. After briefly summarising and rejecting his interpretation of Individualistic and Socialistic Hedonism as inadequate explanations of the formal constitution, the author proceeds to his own theory of Humanistic Eudæmonism. Here again the rational element asserts its pre-eminence. Natural instincts as such cannot formally constitute conscience; they must be displaced to make way for Reason and Eudæmonism: "it is the Distinctively Rational nature of man which is the ultimate constitution, and Humanistic Eudæmonism which is the final end of these activities". (For a definition and description of Humanistic Eudæmonism we refer the reader to p. 116.) We fail to reconcile this elevation of the Rational element to the supreme position with the results of the preliminary analysis, in which it was relegated to the background as subordinate to sensibility. It is true that emotion is again brought to the front in the "material constitution". The activities of conscience are "due to our possession of a distinctively rational nature"; in the most elementary man there is the conception of a good higher than sense, as well as some sensibility to it; but to this vague notion of something which is good for man as man, in which the formal constitution consists, and which is the ultimate standard and motive of good for a man as such, must be added the special conception of particular goods which go to make up the material constitution.

It is by this addition of a material constitution, consisting of particular goods, that Mr. Robertson distinguishes his theory from what he calls the Abstract Rationalism of Kant. Without the aid of particular goods, and concrete impulses and emotions, the rational element is inadequate to the control of the animal nature, and it needs to be reinforced by them before it can become operative. Here the author finds himself getting dangerously near to what he calls the instinctive theories; he is trying to steer between Scylla and Charybdis, and to redress the balance he falls back upon the statement (p. 141), that "Everything special in the motive or impulse of duty which cannot be conceived as becoming universal—when circumstances and conditions, inward and outward, are similar—must be finally rejected". But this is Kantianism pure and simple; the one Categorical Imperative, "Act only on that maxim whereby thou canst at the same time will that it should become a universal law".

It does not seem essential, either to Mr. Robertson's or any other theory of conscience, to have a special theory to prove that it is possible for humanity at one stage of development to act in a way of which it does not all approve at a later stage. However, a new set of conditions called pro-ethical conceptions and quasi-instinctive sensibilities are here

introduced to account for the phenomena of scalping and cannibalism. This having been done, the way is prepared for a statement of the four principles by means of which man is to succeed in subduing his lower nature, and which "materially constitute conscience, and make it all it has within it the possibilities of being, and all it should be".

The treatise concludes with a chapter explaining the author's reasons for giving the name of Dynamic Spiritualism to his theory of conscience.

H. Dendy.

Social Evolution. By Benjamin Kidd. London: Macmillan & Co., 1894. Pp. 348.

This book attempts to review the evolution of Western society in the past (especially since the beginning of the Christian era, and most especially since the time of the Reformation), and to forecast its probable course in the future. In Mr. Kidd's view "the central feature of human history" is the influence of Religion—that is (within the time and space that the author is specially concerned with) the Christian Religion. "Human Evolution," he holds, "is not primarily intellectual"—it is certain ethical or religious qualities which make social life (in the wide sense of *social*) possible and successful, and it is those Western whites who are best endowed with steadfastness and altruism that lead the van in the march of social progress. Christianity supplies (1) ideals of altruism, and (2) super-rational sanctions by which men are induced to follow those ideals—which, in Mr. Kidd's view, however advantageous to the race, are not so to the individual, and are not sanctioned by "Reason". He would not agree with Hobbes that "articles of peace," and submission to government, are primary dictates of Reason.

He holds that Social Progress has been, and will be, not towards Socialism, but towards a condition in which there is an ever-increasing keenness of competition, together with an ever-increasing tendency to bring men generally "into the rivalry of life on terms of equality".

Essai sur les Conditions et les Limites de la Certitude Logique. Par G. Milhaud, Docteur ès Lettres, Professeur de Mathématiques spéciales au Lycée de Montpellier. Paris: Félix Alcan, 1894. Pp. 237.

Perhaps the purpose of this book could not be more clearly indicated in a word or two than by the following sentences from the very short Preface: "We desire to show that—because of the conditions necessary for its recognition—logical contradiction does not authorise any affirmation beyond particular facts directly observed, and we wish to condemn the delusion of all those who, in the name of the Law of Contradiction, bring forward definite solutions of problems whose scope transcends the region of experience. Our method is based on the distinction (which we hold to be fundamental) between the elements of thought which are *given* and those which are *constructed* [by the mind]." By the *given* elements, Dr. Milhaud means those received through the organs of sense, and (apparently) mental "images" of these; Hume's *impressions* and *ideas*. By the *constructed* elements he means *Concepts*, *i.e.*, notions of groups of qualities selected and put together by the mind itself, either by mere abstraction from observed objects, or (it may be) by putting together in thought attributes which have never been perceived in combination.

Dr. Milhaud holds that it is only when we use our terms to denote Concepts constructed by the mind at its own choice, defining the terms

in accordance with the connotation of those concepts, that we can apply the Law of Contradiction and thus have logical certainty. He considers that the large amount of logical certainty by which Pure Mathematics is distinguished, is due to the dependence of that science on definitions; and that *in as far* as it has this certainty, it is based on definitions. In his view, the concepts to which these definitions refer and with which Pure Mathematics is concerned, are of a wholly "intellectual" nature, and altogether removed from the materiality of 'impression' and 'idea'. Analytic Geometry needs no reference to, and indeed no thought of, lines or angles—*a's* and *b's*, *x's* and *y's*, detached from sense and even from number, are all that it requires.

As will have appeared, Dr. Milhaud regards all "logical certainty" as analytic—any general statement can be known to be true only if we have defined our terms so as to make it so. This view, which still lingers on, always seems a little awkward to meet, because our thought can only be communicated to others by the help of language, and has grown up in such close relationship to language that it seems peculiarly difficult clearly to mark the line of demarcation between them—as it is in all cases to separate between organ and function. *If a man is living, he cannot be not-living*, can, says Dr. Milhaud, only be logically certain if we have defined *not-living* as meaning that *life is absent*. But then what does *absent* mean, what does *not* mean, what do *defined* and *certain* mean? There is something behind words to which our words refer and for the sake of which we use them—*une langue* cannot be judged to be *bien faite* unless we view the words in relation to something beyond them. If all that is wanted for 'logical certainty' is to set out from definitions, and if logical certainty is so valuable as we all feel it to be—if Mathematics from its logical certainty is the ideal of Science—how is it that we remain unprovided with equally satisfactory constructions based on definitions, in other departments of Science, Physical and Moral? And how is it that Mathematics is in touch (as it is) with Physical Science?

Dr. Milhaud seems to regard the Law of Contradiction as the one basis and test of logical certainty. But, on the one hand, what does it come to after all, if its only business is in the sphere of Definition: and on the other hand, is there not a reason to be given for accepting this Law of Contradiction—namely, that it is Self-Evident? And does not this reason supply us with something even more fundamental than the Law of Contradiction itself? So that not only the Law of Contradiction, but also every other proposition that is self-evident, is to be accepted. And it is just in this characteristic that the all-important difference between Mathematics and other Sciences is to be found. For, *e.g.*, it is not surely any Definition of *Isosceles Triangle* and of *Equal angles at the base* that constrains us to the conviction (after having understood Euclid, i. 5) that all isosceles triangles have the angles at the base equal, but a perception (entirely apart from the meaning of words) of a necessary and inseparable connexion between the attributes *equi-sided* (1) and *equal-angled-at-the-base* (2) in any triangle. Whatever words we use or don't use, we surely feel that wherever (1) is, there (2) must necessarily be also. It is *this* and not any miraculous potency of definition that makes the use of Mill's 'Methods' superfluous in reaching mathematical generalisations; it is as providing a test of inseparable connexion that those Methods are valuable, in cases where we fail of direct perception of inseparability between characteristics.

Dr. Milhaud's whole contention is founded upon a distinction between two uses or aspects of words—the 'subjective' namely, and the 'objective' (to add one more to the many burdens which that ill-used and used-up couple have already to bear). By the 'subjective' use, he

means the use as applied to a concept; by an objective use, he means the use as applied not to *our thought of* a thing, but to some thing *itself* —some thing, that is, which is not a concept. It is because he holds that it is impossible to be sure of *any* inseparable connexion of attributes in subjects, except the artificial inseparability fixed by a definition, that he refuses to admit any synthetic universals; and this refusal of course excludes the application of the generalised statement of the Law of Contradiction, except to analytic propositions. But (not to mention that even an analytic proposition involves a synthetic principle of identity, that transcends experience), how can Dr. Milhaud—on his view —justify his own distinction between objective and subjective, between concepts and material things—a distinction upon which his whole theory depends? He seems, in fact, to cut the ground from under his own feet by this distinction, which must be capable of being stated in synthetic universals if it is to be worth consideration. Moreover, is not the Law of Contradiction itself a synthetic universal? And again, the line which Dr. Milhaud requires between concepts and other ideas of things, seems exceedingly difficult to draw or adhere to. Have we not 'concepts' of everything of which we speak, have not all concepts some reference beyond themselves, and further, are concepts always clear and immutable? And when those concepts are reached in which all the data of sense have been got rid of, and we are concerned with "de pures constructions de l'esprit," what is it that remains to form the content of the concept? Does Dr. Milhaud need reminding that *Begriffe ohne Anschauung sind blind?*

We have referred chiefly to part i. of Dr. Milhaud's Essay (Conditions de la Contradiction logique) and to the first two chapters of part ii. (which is concerned with the conditions of logical certainty in Mathematics). Chapters i. and ii. deal with Pure Mathematics (containing, among others, interesting sections on Function, Continuity and Limit). Chapter iii. (and last) discusses the *rôle* of Mathematics in science generally—the conclusion on this point being, that its work is to furnish as perfect a language as possible.

In the third (and concluding) part, which we have not space to consider particularly, the author examines certain current theories which conflict with his doctrine.

E. E. C. J.

Les Bases économiques de la Constitution sociale. Par ACHILLE LORIA. 2me édition entièrement refondue et considérablement augmentée. Traduite de l'italien sur le manuscrit original par A. BOUCHARD. Paris: Félix Alcan, 1893. Pp. 430.

Such is now what in its original form was an Inaugural Lecture delivered by Prof. Loria nine years ago at the University of Siena. The public demand which stimulated and nourished so great a development is due, the author with serene candour declares, to the 'serene candour' with which in his exposition he opposed 'the enormities of contemporary morals and politics, the systematic falsification of things characterising modern sociology, by the sincere affirmation of truth,' 'revealing what was an open secret,' *viz.*: that cupidity, egoism and clique dominate our so-called democracies and that as for our politics Isis unveiled reveals 'only a greedy and pitiless crocodile'. All were at least interested to hear this and all 'the intelligent classes'—after a long time—will understand and accept it.

After a little 'wind-music' of this kind (awakening echoes at the conclusion) the distinguished writer settles down to his fugue *a tre voci*,

a work in three parts of great interest and impressiveness, no longer new to readers of Italian, but to the larger world of those conversant only with French accessible in its present development for the last twelvemonth. It is always interesting, if not always convincing, to follow with sympathetic curiosity the thoroughgoing application of some base-idea to explain men and things, a tendency which, however much a stronger because a wider vision may modify it in the future, has characterised the philosophic mind from Thales to Loria. So it is to listen to a specialist magnifying his office by ascribing to his art the possession of the keys to the Last (or the First) Things. So it is to hear an economist throwing overboard from the deck of a new Orthodoxy, yet voted visionary and revolutionary, all that his orthodox predecessors and contemporaries hold sound. So it is, finally and most specifically, to note the aspect under which Capitalism essentially presents itself to the thinker of an agricultural country like Italy in contrast to the view taken by a manufacturing and merchant folk like ourselves. For all this is here. The springs of action resulting in human institutions are represented as determined solely, in the last resort, by the 'real substratum' of economic relations. The 'economic man' assumes Titanic proportions; we always knew he had 'un seul instinct, un seul mobile . . . le désir de la richesse,' compared to which all other passions are but 'dumb actors' in the social drama. But then he was more or less hypothetical. Here however he is actual and concrete: 'the most diverse manifestations of social life,'—morals, law, politics,—constitute a 'superstructure' of 'non-economic connective institutions' resting on the basis of the one economic motive. All this the author sets out under the three headings entitled, 'The Economic Bases of Morals, of Law, of the Political Constitution,' and finally in his conclusion entitled 'Sociology on an Economic Basis,' insists, that it is only from this standpoint that sociology can attain to such scientific exactitude as Political Economy can show, and lose its present character of *un salmigondis incohérent de connaissances hétérogènes, . . . un ramassis de toutes les vulgarités intellectuelles, digne et légitime arène de tous les prolétaires de la pensée.* It is no use to try to make it other than inchoately inorganic by simply calling society an 'organism,' and refusing to show social relations depending upon economic relations, because in an organism there is of necessity reciprocal reaction or interdependence. Herbert Spencer himself admits that he uses 'social organism' as a 'figure of rhetoric' only. If the term imply only that society is no artificial product to be made and re-made, but something that 'growed,' this is true and established. But in that organism the 'necessary primordial organs' are the economic factors.

Hence Economics is the study of relatively ultimate principles underlying all other human institutions, and its central analysis is of that modern embodiment and result of the desire for wealth, Capitalistic Property. This it reduces to 'actual suppression of free land, got through exclusive appropriation of the soil and tending to bring profits beneath a minimum' and so suicidally to bring about the end of capitalistic economy and its transformation into an ideal economy of free association between capitalists ('producers of capital') and workers, based on free land-tenure. The one work for economic reform should be to free the soil, and the crowning work of political economy 'in its exact theory of returns (*revenu*) will be to have established the basis of a scientific sociology, which will be the moral science *par excellence* when capital is in its dotage, just as law represented the culminating point of social science during the childhood of property'.

C. A. Foley.

Psychologie des Erkennens vom Empirischen Standpunkte. Von Goswin K. Uphues, Professor der Philosophie an der Universität Halle. Bd. i. Leipzig: Verlag von Wilhelm Engelmann, 1893. London: Williams & Norgate. Pp. 289.

This work offers, as the author states in his Preface, a theory of Consciousness and Perception based on Empirical data. The first twenty-two pages are occupied with the consideration of the relation of Psychology to the other branches of philosophical discipline, especially to *Pädagogik* and *Geschichtsphilosophie;* the former treating of the dawn, and the latter of the development of reflective Consciousness in the individual and in the race. The history of the development of the reflective Consciousness in the race is the history of philosophy; up to p. 55, our author, therefore, travels over the familiar ground of the progressive phases of Greek speculation, reserving, however, to an appendix at the end of the work, p. 248, the particular doctrines enunciated by Plato and Aristotle on the nature and functions of the human mind.

From pp. 55-99 the gradual discrimination of subject-consciousness from object-consciousness is handled. We have here the usual empirical presentment of the content of Consciousness, the qualities, attributes, and properties of things translated into the language of mind through the channels of the nervous system and sense-organs. Emphasis is laid on the tactile and joint sensations as the basis of our knowledge of the external world. The reiterated experience of similar objects and uniform sequences of events make up what we understand on the objective side by laws of nature, and on the subjective by the categories of thought (p. 72). From pp. 99-117, our author endeavours to limit and define the scope of his subject, *Psychologie des Erkennens*, the province of which includes the logical operations whereby the Mind cognises, recognises, apprehends, judges and reasons. The author is very careful to exclude from his subject any inquiry into the transcendental validity of his psychological data; this belongs to Metaphysic.

In the section entitled "Equivocal meaning of the word Consciousness," Prof. Uphues struggles strenuously to define Consciousness in terms of something different from itself. We need hardly say that in this attempt he is not very successful. Consciousness is a phænomenon *sui generis* and all he can say is,—"An act of Consciousness is an event of which we are conscious" (p. 127), or again,—"Consciousness is the specific characteristic of an act of consciousness". The ultimate elements of Consciousness seem, however, according to Prof. Uphues, to be of the nature of feeling, Desire, and Aversion (p. 130). The bond by which the grouping of mental states is effected is regarded as an unanalysable fact. A present state of consciousness contains some residium of, or rather reference to, past states, and through this reference past states are recalled. How, we know not, nor does Prof. Uphues seem to venture on any physical hypothesis.

From pp. 157-185, the processes and phænomena of Perception are described. Perception and Reflexion have this in common that each is an act and an object at the same time; the act, however, is not distinguishable from the object. The object of reflexion is a state of consciousness; the object of perception is something transcending consciousness. The reader must beware of Prof. Uphues' use of the word Transcendent, which with him simply means anything out of Consciousness. Our author adopts the doctrine of local signs in his analysis of perception, but he does not seem in favour of the theory which accepts the consciousness of effort or activity as the basis of objective knowledge. In fact he repeatedly and emphatically rejects this theory as being only a

survival of the obsolete Animismus of the past. The conception of Activity, he asserts, is given *to* consciousness not *by* it. In this connexion the reader would do well to consider the subtle observations of Prof. Uphues on the meaning of the word 'Kraft' (see pp. 62, 63).

Prof. Uphues asks on p. 208, What do we understand by the word Extension? He replies that it is a sum of homogeneous, contemporaneous, reciprocally connected, but independent parts which are presented as sensations. These parts, he adds, are only geometrical points and not things, and can only be individualised when brought into relation to other objects. To many English readers the explanations in this work of the so-called theories of Projection, Relativity and Objectivity will be found most novel and interesting. They are, however, too close and subtle for brief summarisation.

In fact the entire treatise is somewhat too densely packed with supersubtle reasoning and nice distinctions. There is a lack also of illustration, so that the bewildered student finds himself in a perfect psychological jungle, where, as the Germans say, "the forest is hidden by the trees". Our author adopts a very convenient method of arrangement by keeping his purely expository matter quite separate from the controversial, the latter being relegated to Notes appended to each section.

T. W. Levin.

Der Entwicklungsgang der Kantischen Ethik bis zur Kritik der reinen Vernunft. Von Friedrich Wilhelm Förster, Dr. Phil. Berlin: Mayer & Müller, 1894. London: Williams & Norgate. Pp. 106.

In the most representative and matured ethical writings of Kant he always appears as the strenuous upholder of the independent and *a priori* character of the moral maxims and sanctions of human conduct. From some of his unpublished writings, however, in the possession of Dr. Benno Erdmann, to which the author of the present essay has had access, and which embody the earlier ethical speculations of Kant from *1762* to *1765*, it would seem that he by no means held, at the commencement of his speculations, the same uncompromising *a priori* attitude which he consistently maintained in his subsequent writings. The author of the present essay sets himself the task of determining the influences by which Kant had been led to adopt and then to change his ethical views. At the beginning of his philosophical career Kant had to decide between moral principles differing as widely as those of Wolf on the one hand and Rousseau on the other; and although naturally prejudiced in favour of his teacher Wolf, Kant seems to have been also very powerfully attracted by the English Empirical School, Shaftesbury, Hume and Hutcheson, as well as by the ultra-sentimental J. J. Rousseau (pp. 6-12). It was from Rousseau, as Dr. Forster thinks, that Kant derived his ethical method, *viz.*, to determine accurately the nature of man and thence to infer the nature of his duty, *i.e.*, what manner of conduct shall best express his purest nature. Dr. Forster then proceeds to compare the possible influence of Shaftesbury with that of Rousseau on Kant. Shaftesbury inspired him with enthusiasm for moral beauty, Rousseau with enthusiasm for humanity. In one of Kant's earliest works, *The Foundations of Natural Theology*, he emphasises the ground of Moral Obligation as the central problem of Ethics—the principle which appeared in his later works as the familiar Categorical Imperative. But Rousseau had found the ground of Moral Obligation to be the resultant expression of the feelings and impulses of all the rest of humanity. Moral Obligation is but the social instinct.

The greater part of this essay, then, is devoted to tracing the gradual evolution of the social instinctive impulse into the stringent Categorical Imperative issuing its behests without any reference to Pleasure or Pain.

T. W. Levin.

Metaphysik. Bd. i. *Erkenntnisstheorie.* Von F. Erhardt. Leipzig, 1894. Pp. x., 642.

Although announcing itself as the first part of a metaphysical system, this volume forms a work complete in itself dealing with the problem of cognition. The author, who tells us that he has been influenced far more by Kant than by any other philosopher, accepts the *a priori* origin and ideal character of space and time, but altogether rejects the system of categories as a subjective contribution to knowledge and as applicable to phænomena only. On the contrary he holds that causality is a notion derived from experience and applicable to things in themselves but not to phænomena. Thus he is no agnostic but a thoroughgoing believer in the existence and cognoscibility of a real world outside ourselves, and also, notwithstanding the ideality of time, a believer in the reality of the psychic processes. About two-thirds of the volume are occupied with an argument for the ideality of space and time far more elaborate than has been offered by any previous thinker. A word of praise must be given to the clearness and simplicity of Herr Erhardt's style. Critical notice will follow.

Le Basi della Psicologia e della Biologia secondo il Rosmini, considerate in rapporto ai risultati della scienza moderna. By F. de Sarlo. Roma: Tipografia Terme Diocleziane, 1893. Pp. ix., 175.

Prior to setting forth his analysis of the Rosminian philosophy, the author devotes a 'dedicatory preface' of several pages, addressed to Prof. Luigi Ferri, giving his own 'creed' respecting the nature and functions of philosophy and its relation to science. No one more than Rosmini has pointed out the importance of science and philosophy, and recognised their mutual dependence and solidarity. It is not sufficiently recognised that philosophy is not merely a series of arbitrary fictions of the imagination, but, as distinguished from the segmentary, purely intellectual work of the particular sciences, may be regarded as the reaction or response of the whole man, of man as feeling and willing, as well as knowing, confronted with the Datum of the universe. Man's emotional needs and the aspirations and tendencies of his will are just as real as the phænomena of the intellect, and philosophy, in taking account, as science does not, of the former, is not thereby reduced to a Poetry of the Ideal, for poetry, as Fouillée has remarked, while free in substance is bound as to form, but metaphysic is free in form, but bound in substance. The intellectual work of philosophy is to synthesise and integrate the results of the sciences and resolve their import into higher conceptions. Its method may be mainly speculative, in the sense of hypothetical; and what science is not more or less so? (It is possibly significant that here no mention is made of the part played by verification in *scientific* hypothesis and induction.) The inquiries of science have no meaning apart from the wider inquiries of philosophy, but these are now no longer such as, What is the universe? but rather, How is the universe felt, thought, willed by human consciousness? This and all other changes in philosophy are the results of change and progress in science. And taking account of man's inmost being, the *Individuum ineffabile* of the

scholastics, it inevitably in the mouth of each thinker assumes so personal an expression, that the day of philosophic unison will be the last day of philosophy. Nevertheless the day for rounded-off systems of philosophy is past. The Real is too rich to be contained in formulæ and schemata, and scientific progress has made philosophy fearful of dogmatising. A philosophy can only be an epochal growth like a language or a mythus. And it must cultivate a more subjective standpoint. For an objective concept like force or pure energy, we must substitute 'interiority,' spontaneity, subjectivity, psychic force or Ferri's *dynamism*. Each one must cease to don a system like a cloak, but must philosophise from his own inmost personality. Finally, philosophy is divided into three heads: (1) Psychology (mental analysis); (2) Formal Logic and Critique of Knowledge, also Ethics; (3) Cosmology, also Æsthetics and Teleology.

Rosmini's ideas are then set out (part i.), and applied (part ii.) to the results of modern science. For his theory of Feeling it is claimed that as 'spontaneity and as suggestive activity' it explains philosophically the phænomena of generation and heredity.

Om Francis Bacons Filosofi Med Särskild Hänsyn Till Det Etiska Problemet. Efraim Liljeqvist. Upsala: hos Lundequistska Bokhandeln, 1894. Pp. v., 365.

The treatment of Bacon's ethical theory takes up relatively less space than the author originally intended it should, as it was found necessary to subject Bacon's general philosophical theory, and especially his doctrine of method, to a more detailed discussion, on account both of the uncertainty in the commentator's views regarding them, and of their relation to the Ethical theory itself. The first half of the book is devoted to a careful and detailed summary of Bacon's philosophical views, as given in the *Novum Organum*, the *Advancement*, and the *De Augmentis*, while the *Essays* are used to illustrate his ethical standpoint; the remaining half subjects these views to an exhaustive criticism.

Among general traits emphasis is laid on the thoroughly practical character of Bacon's philosophy, shown in Ethics for example by his rejection of the *Summum Bonum* as belonging to the sphere of religion, and by his faith in the *aurea mediocritas*, and in the utility of the individual as the ethical standard. A further trait is the dualism of aim and starting-point, in other words of universal and particular, which runs through the whole of his philosophy, and introduces inconsistency into every part. He hopes to attain a universal science, *Philosophia*, but starts from a basis of unrelated particulars, the *Historia Naturalis*, which could never justify the hope. The one element is the rationalistic, traced back through Scholasticism to Plato and Aristotle, the other the empirical or genetic,—the essentially 'modern' element in Bacon,—in which, according to Liljeqvist, lies the true bent of his genius (not in the rationalistic, as Heussler supposes), and through which he is the forerunner of Hobbes and Locke. The dualism makes itself felt in the method which claims to be inductive, but is really analysis, or abstraction (Sigwart), and in the fact that the method and doctrine of Forms mutually involve one another (consider the *Termini Inquisitionis*), so that no beginning is possible. In the doctrine of Forms, the discussion of which is one of the most interesting parts of the book (pp. 214-251), the universal element is represented by the theory of the Form as *causa formalis*, *essentia*, *divinæ mentis idea*, the atomistic or naturalistic by the definition of the Form as a *lex*, that is, a formula for the corpuscular

motion to which a simple nature corresponds. When the Form is the notion, the *causa formalis*, there can, of course, be no question of plurality of causes. Distinctly valuable is the author's treatment of the *materia prima* (230-241 *v. De Principiis*) and the importance he assigns to it, as forming, together with the simple natures, one of the elements of things. There are reminiscences of Aristotle in this doctrine also, but on the whole it expresses the fundamental materialism in Bacon's philosophy. The *materia prima* is found to consist of corpuscular atoms, determined only in regard to quantity, other determinations being indifferent to them. (Hence the possibility of transposing simple natures from one body to another.) On p. 240 the author puts forward a shrewd conjecture that the much-debated *Fons Emanationis* (*Nov. Org.*, ii., 4) is just this *materia prima*.

Important are also the discussions of the *affectus* (316 ff.), of Bacon's individualistic views in the theory of the State (329 ff.), and of the influence on Bacon of Machiavelli (esp. 344 ff.), which is claimed to have been much greater than is usually supposed. The work should be for Swedish students a valuable guide through the Baconian maze.

Received also :—

A. C. Fraser, *Locke's Essay Concerning the Human Understanding*, Oxford, at the Clarendon Press, 1894, 2 vols., pp. cxi., 535 and 495.

F. H. Collins, *Epitome of Synthetic Philosophy*, third edition, London, Williams & Norgate, 1894, pp. xix., 639.

M. Müller, *Three Lectures on the Vedânta Philosophy*, London and New York, Longmans, Green & Co., 1894, pp. vii., 173.

P. Deussen, *The Elements of Metaphysics*, translated by C. M. Duff, London and New York, Macmillan & Co., 1894, pp. xxiv., 337.

Histories of American Schools for the Deaf, 1817-1893, 3 vols., Washington, D. C., the Volta Bureau, 1893.

B. Waller, *The Microcosm and the Macrocosm*, London, Kegan Paul, Trench, Trübner & Co., 1894, pp. vi., 95.

H. Kleffer, *Science et Conscience, ou Theorie de la Force Progressive.* Tom. Premier. *La Methode Naturelle*, Paris, Félix Alcan, 1894, pp. xviii., 377.

E. Boirac, *L'Idée du Phénomène*, Paris, Félix Alcan, 1894, pp. 347.

L. Lévy-Bruhl, *La Philosophie de Jacobi*, Paris, Félix Alcan, 1894, pp. xxxviii., 263.

L. Brunschvicg, *Spinoza*, Paris, Félix Alcan, 1894, pp. 224.

G. Danville, *La Psychologie de l'Amour*, Paris, Félix Alcan, 1894, pp. iii., 169.

E. Grosse, *Die Anfänge der Kunst*, Freiburg, J. B., und Leipzig, 1894, pp. vii., 301.

IX.—PHILOSOPHICAL PERIODICALS, ETC.

In the International Journal of Ethics for April Mr. F. H. Bradley makes some stirring—and rather disturbing—'Remarks on Punishment,' or rather on 'ethical surgery,' the proper substitute for punishment in a society that has learnt the lesson of Darwinism. He advocates a return from Christian ideas on the sacredness of human life to Hellenic ideas. Mr. H. C. Lea traces the history of the doctrine of 'Occult Compensation'—the moral right to steal what is due to one—in mediæval and modern "moral theology": his statements appear to constitute a serious indictment against modern Catholic casuistry. Mr. Bosanquet endeavours to establish 'The Reality of the General Will': he identifies "the general will of any community with the whole working system of dominant ideas which determines the places and functions of its members, and of the community as a whole among other communities"; but *not* (1) with "the decision of a community by vote upon any single issue," *nor* (2) "with public opinion, considered as a set of judgments which form the currently expressed reflexion upon the course of affairs". These negatives leave the method of determining the general will for practical purposes somewhat obscure. Prof. E. B. Andrews writes on 'The Combination of Capital': his conclusions are that the "monopolistic form of industrial organisation" is rapidly prevailing; that its prevalence is highly dangerous; that it may, however, bring to society "immense net advantages economically," but only on the condition of men's moral improvement. Archbishop Satolli replies to Prof. Mariano's article in the January number on 'Italy and the Papacy'. There is also an interesting discussion between Mr. Frederic Harrison and Dr. Adler on 'The Relation of Ethical Culture to Religion and Philosophy': a reply by Mr. J. S. Mackenzie to the criticisms of Mr. Stout: and a "personal explanation" by Mr. F. H. Bradley with regard to his attitude towards Hedonism, which is now less antagonistic than it was seventeen years ago. "Indeed," he says, "I sometimes fancy that I might end on terms of friendship with Hedonism."

The Psychological Review.—Vol. i., No. 2. G. S. Fullerton—The Psychological Standpoint. [Plea for the natural-science standpoint in psychology. Appreciation and criticism of James' practice and theory.] J. Royce—The Case of John Bunyan, ii. [Continuation of analysis of Bunyan's mentality in terms of insistent ideas.] J. Jastrow—Community and Association of Ideas: a Statistical Study. [The first five associations found in 69 lists of words, containing in all 3262 words. Curves showing the relation of community of ideas to the "distance" in associated words from the original, suggesting word. The proportion of different and once-used words increases as the associations proceed.] C. S. Dolley and J. McK. Cattell—On Reaction-times and the Velocity of the Nervous Impulse. [The velocity in the plain nerve cannot be determined by differences in reaction-time. But the experiments indicate a much greater rate than the accepted 30m. per 1″. The study of reaction-time is useful in physiology and psychology, and leads to practical applications in medicine and pedagogy.] *Discussions:* C. L. Franklin—Colour-sensation Theory. [Reply to Sanford's criticism, *Psych. Review*, i., pp. 97 ff.] G. H. Mead—Herr Lasswitz on Energy and Epistemology. Psychological Literature. Notes. Vol. i., No. 3. A. T. Ormond—Freedom and Psychogenesis. [Freedom is identified with self-activity and

construed teleologically.] J. Royce—The Case of John Bunyan, iii. [Concluding and perhaps most controvertible part of this analysis. Very briefly summarised, the author's theory is as follows: (1) Sensitive, somewhat burdened nervous constitution, though no serious hereditary weakness. (2) Childhood: frequent nocturnal and diurnal terrors of the familiar kind. (3) Youth (marriage, poverty, religious anxiety): insistent conscientious fears, followed by abnormal habitual doubts and questionings. (4) Manhood (neurasthenic): highly systematised mass of insistent and painful motor speech-functions, with more fears, doubts and questionings. Persists; remits; contents of insistent ideas change; crisis, resulting in secondary melancholic depression, benign, and ending in removal of the systematised insistent impulses. Self-imposed mental regimen prevents serious relapse.] H. M. Stanley—A Study of Fear as Primitive Emotion. [The first emotion was probably painful. How did it arise? Simple primary cognition arises from pain; in later forms cognition conveys impression of the object's pleasure-pain quality. The answer must be in terms of analysis of the way in which representation is built up. Association and memory? Rather the succession: pain, cognition of object, cognition of pain, cognition of pain-agency of object. In this way every cognition comes to imply representation of feeling value.—An original, though not always very clearly worded article.] J. H. Hyslop—Experiments in Space Perception, i. [Test of the muscular and motor elements affecting the problem of space perception, first as regards the perception of magnitude. Magnitude varies with degree of convergence. If two circles are stereoscopically combined, all three resultants are smaller than the originals, in proportion to the distance between them; the central circle the smallest. This cannot be ascribed to pupillar contraction, or to modification of the lens, or to the functions constituting convergence,—unless the binocular fusion with its nearer localisation requires more effort than the monocular localisation? Then, reduction of the external circles = contraction of lens; greater reduction of central circles = this + binocular tension (of convergence and fusion). Confirmation of this by 'negative' combination of circles. Proof of modification of magnitude with convergence. Further experiments, however, show that the greatest central diminution is connected with fusion; the less, external diminution with the general convergent condition. The influence of contraction of the lens is ruled out.] J. M. Baldwin—Personality-suggestion. [Stimulations to activity got by the child from persons have four stages: (1) bare distinction of persons from things; (2) sense of irregularity of behaviour, germ of sense of agency; (3) vague distinction of personal character; (4) after sense of own subject-agency by imitation, social feeling.] Shorter contributions—W. O. Krohn—Sensation-areas and Movement. E. W. Scripture—Adjustment of Simple Psychological Measurements. Discussion. A. H. Lloyd—Judgment as 'the Collective becoming Abstract'. Psychological Literature. [James on Ladd, Münsterberg on Külpe.] Notes.

The Philosophical Review.—Vol. iii., No. 2. J. H. Hyslop—Some Anomalies in Logic. [Logic is perpetually qualifying its formulæ. Illustration by reference to the theory of Opposition. Supplementing of its ordinary canons by five new rules.] Brother Chrysostom—The theistic Argument of St. Thomas. [An exposition, in terms of Aristotelianism. Uncritical.] H. Haldar—Green and his Critics. [A plea for remodelled Hegelianism, in place of Kantian epistemology.] E. Adickes—Bibliography of Writings by and on Kant which have appeared in Germany up to the end of 1887, vi. *Discussions:* E. B. Titchener—The Psychology of "Relation". J. E. Creighton—Modern Psychology and Theories of

Knowledge. [Both papers urge the separation of psychology from logic and (or "or") epistemology.] Reviews of Books. Vol. iii., No. 3. J. P. Gordy—The Test of Belief. ["Whatever we are asked to believe ought to be a necessary truth, or an ultimate belief—a belief having the characteristics of being assumed through a natural tendency, and of not being interfered with by experience, or an hypothesis that explains all the pertinent facts and that takes its place easily and naturally among our other beliefs." Exposition and refutation of possible objections] J. Seth—Are we 'Conscious Automata'? [Examination of parallelism (Clifford, Huxley). The law of the conservation of energy fails us before we reach consciousness, *i.e.*, in the organism. Yet psychophysical control need not, any more than physiological, abrogate physical causation (Burdon Sanderson, Lodge). Agnosticism holds the field on the question of the relation of mind to body (Hume); but the *ignoramus* is not an *ignorabimus*.] N. Wilde—Kant's Relation to Utilitarianism. ["Kant is opposed to utility not as the end of conduct, but as the motive to conduct."] E. Adickes—German Kantian Bibliography, vii. *Discussions:* J. Dewey—The Ego as Cause. [Is there any conception of freedom of will (in the libertarian sense) which does not come in the end to the old-fashioned doctrine of a freedom of indifference?] Reviews of Books. Summaries of Articles. Notices of New Books. Notes.

Revue Philosophique.—May, 1894. Durkheim—Les règles de la méthode sociologique (1re article). [Social facts must be considered as 'things,' *i.e.*, as having objectivity, externality. Since the knowledge of 'things' is given through sensation, it is on sensation and not on conception that sociology must rest. To avoid the subjectivity of sensation, the social facts must be selected where they present most consolidation and in consequence are more susceptible of objective representation.] Rauh—Le Sentiment et l'analyse. [A psychological study of the different effects of analysis—*i.e.*, introspection—on feeling.] L. Weber—Sur les diverses acceptions du mot Loi dans les sciences et en metaphysique. [An important article. In his treatment of scientific law, M. Weber exhibits the reaction against the ordinary scientific tendency to regard the laws of phenomena as more real than the phenomena. I. Scientific law means "constant and necessary relation between phenomena". Relation = co-existence in thought; constancy of relation implies integral repetition of phenomena. The end of science is not truth but practice. The necessity of a particular law arises only from its dependence on a larger hypothesis. The necessity of physical law in general has no evidence except the practical decision to treat external experience, our only instrument, as an infallible instrument. II. Metaphysical laws are either the Subjective laws or rules of method, which express the conditions of systematised thought and may be reduced to the rational principles of identity and sufficient reason, or else objective laws referring to existence in general,—as the laws of causality, finality, &c. The first are laws in the most nearly absolute sense of the term, but express, not relations, but the reality of thought itself. The second can be maintained only, as appears on analysis, by virtue of imperfect definitions. "The physical law *expresses*, above all, the constancy of a relation. The objective metaphysical law supposes (feint) the constancy of a relation, but the metaphysical domain is too great to permit the exact definition of universal relations which shall remain constant from one point of it to another."] Notes et Discussions.

Philosophische Studien.—Bd. ix., Heft 4. A. Kirschmann—Die

Parallaxe des indirecten Sehens und die spaltförmigen Pupillen der Katze: mit 7 Figuren. [The parallax of indirect vision (incongruence between visual angle and angle of rotation) is of considerable magnitude. When there is alteration of accommodation, or of movement of eye or object, it conditions alteration in the relative positions of retinal projections. This has a uniform and univocal relation to the third dimension, and is probably concerned in the origin of the monocular depth-perception. Hence we can speak of a third (depth) system of local-signs, beside the intensive and qualitative (areal) local-signs. The parallax of indirect and that of binocular vision have similar functions. Secondary aids to the depth-perception (width of pupil, dispersion-circles). Explanation of the pupillary reaction in movements of accommodation and convergence, and of the form and function of the pupil in the eyes of certain animals.] W. Wundt—Akustische Versuche an einer labyrinthlosen Taube. [Experiments on a bird, whose labyrinth had been extirpated by Ewald. Proof of true hearing. *Cf. Phil. Stud.*, viii., 641 ff.] F. Kiesow—Ueber die Wirkung des Cocain und der Gymnemasäure auf die Schleimhaut der Zunge und des Mundraumes. [Exploration of the buccal cavity with cocaine (general anæsthetic) and the acid obtained from the leaves of *Gymnema silvestre* (which is known to destroy the sensation of sweet). Results: (1) cocaine; for *touch*, great differences at different parts; for *temperature*, no alteration of sensibility (?); for *taste*, salt and acid are true tastes, like sweet and bitter. (2) Gymnema; *touch* and *temperature*, no effect; for *taste*, it influences sweet much as cocaine influences bitter, but there is no resemblance between its effect on bitter and that of cocaine on sweet. Further results will be published later.] C. Radulescu-Motru—Zur Entwickelung von Kant's Theorie der Naturcausalität, ii., 3. [(1) The concept of cause in Kant's pre-critical period; Stahl and the animistic theory of life; the problem of the unity of thought. (2) Kant's system: time and space; Kant's relation to Newton; knowledge by concepts; theory of the objective judgment; the *Bewusstsein überhaupt* and the system of pure natural science. (3) Function of thought in the judgment; theory of pure concepts of the understanding; scientific experience, and experience according to the form of thought. (4) Schematism of the pure concepts of the understanding; time as the medium of synthetic judgments; time in Kant and the explanatory natural sciences. (5) Pure mathematics and pure physics; did Kant presuppose the concept of mathematical function? Mechanical causation, and the definition of causality in the Critique. (6) Scientific method in the historical treatment of Kant's *a priori*; rationalistic and empiristic "consciousness"; theory of the single individual consciousness; Kant's idealistic system, and its place in the history of philosophy.]

Zeitschrift für Psychologie und Physiologie der Sinnesorgane.—Bd. vi., Heft 6. A. Meinong—Beiträge zur Theorie der psychischen Analyse, ii. [Nature and characteristic results of analysis. Successive analysis.] M. Tscherning—Die monochromatischen Aberrationen des menschlichen Auges: mit 12 Figuren. [Examination of an astigmatic eye, simply myopic over its lower half, and having a complex myopic astigmatism in the upper. The aberroscope.] E. W. Scripture—Ueber die Aenderungsempfindlichkeit. [Attention is called to the existence, beside discriminative sensibility, of the velocity- and acceleration-sensibilities.] C. Ziem—Geschichtliche Notiz über den Fächer im Auge der Vögel. Litteraturbericht. Namenregister. Inhaltsverzeichnis. Bd. vii., Heft 1. K. L. Schaefer—Funktion und Funktionsentwickelung der

Bogengange. [The first appearance of rotatory vertigo coincides in time with the completion of the development of the canals. Experiments on frog larvæ.] H. Zwaardemaker—Der Umfang des Gehörs in den verschiedenen Lebensjahren. [In old age the range is ten, in youth eleven octaves.] J. Hoppe—Studie zur Erklärung gewisser Scheinbewegungen. [Apparent movement after arrest of actual movement is in essential a matter of after-images of movement. Changes of form are due partly to the influence of things really seen, partly to that of after-images of previous phases of movement. The idea of apparent movement emanates from parts of the retina greatly fatigued by fixation of the actual movement.] Besprechungen. [Edinger on the Literature of Neural Anatomy for 1892. Breuer on Ewald's *Nervus Octavus*.] Litteraturbericht.

Philosophische Monatshefte.—Bd. xxx., Heft 1 und 2. W. Schuppe—Die natürliche Weltansicht. [Consciousness is always conscious of some object or content, and apart from its object or content, it is a meaningless abstraction. What we mean by living activity (lebendige Thätigkeit) is nothing more than the various modes of consciousness in their essential relation to an object.] B. Erdmann—Theorie der Typen-Eintheilungen. [Discusses the various methods of logical division, where the boundary lines between one group and another are not rigid. In the biological sciences, morphological, genealogical, and representative Types are distinguished and described. Finally the question whether such Types are to be regarded as ideal or real, is discussed. They are maintained to be real, inasmuch as the classification founded on them is not arbitrary. But all attempts to invest them with reality from a teleological point of view are pronounced to be unscientific.] Julius Duboc—In Sachen der Trieblehre. K. Vorländer—Ein bisher noch unentdeckter Zusammenhang Kants mit Schiller. Recensionen, &c.

Vierteljahrsschrift für Wissenschaftliche Philosophie.—Jahrgang xviii., Heft 2. R. Avenarius—Bemerkungen zum Begriff des Gegenstandes der Psychologie (Erster Artikel). [Argues against the 'introjection' fallacy. The data of Psychology always express the relation of the subject to his environment. They are never purely subjective facts.] W. Jerusalem—Glaube und Urtheil. [In judging we convert presentive content into our own intellectual possession, by moulding and articulating it by a procedure analogous to our own voluntary actions. In so doing we objectify the process, and in this objectifying function of judgment are contained the germs out of which belief and the conception of truth are afterwards evolved. The conception of truth presupposes experience of error.] J. Petzoldt—Einiges zur Grundlegung der Sittenlehre (3ter Artikel). [Further exposition of the tendency to stable equilibrium as a law of the nervous system. This principle is applied to determine the ideal state to which social progress tends. A good article.] Anzeigen, &c.

Revue de Métaphysique et de Morale.- March, 1894. F. Evellin—La divisibilité dans la grandeur : grandeur et nombre. G. Remacle.—La valeur positive de la psychologie. Criton—Deuxième dialogue philosophique entre Eudoxe et Ariste. Discussions, &c.

Philosophisches Jahrbuch.—Bd. viii., Heft 2. A. Linsmeier, S.J.—Sind die chemisch-physicalischen Atome nur eine Fiction ? [The writer, taking chemico-physical atoms, or *molecules*, as counter-distinguished from philosophical or *ultimate* atoms, compares the theory of their real existence with that of the Copernican hypothesis in about 1616; and

concludes, against those who regard them only as a convenient fiction, that the two cases are quite parallel, both theories having equal characteristics of truth.] Pfeifer—Widerstreiten die Wunder den naturgesetzen, &c. (Conclusion.) [Every law of nature either is a *petitio principii* (assuming that God cannot or will not act by Himself in a given case), or it is not contradicted in the case in which He might thus act. A body sinks in the water, if not upheld by *some* force; such is the law: Christ walking on the sea, sustained by Divine force, is no exception to the law. A dead man never rises again, *if* a Power be not put forth that can reverse the death-process. The law is conditional; if we make it absolute, we beg the question.] Nassen—Ueber den Platonischen Gottesbegriff. [Aristotle, the acute thinker, fell short of Plato, the deep thinker, in the doctrinal conception of a Deity. The latter had a real theological system, though he did not live to complete it. Dim and vague with earlier philosophers, this idea was first theoretically and practically developed by Socrates. Plato, from the high standpoint of morality, which is impossible without a God, sets about proving His existence.] Bahlmann, S.J.—Der Grundplan der menschlichen Wissenschaft. (Conclusion.) [Logic, as a practical science, should teach us to enrich our mind with ideas, to use our senses, our imagination, our memory, and to co-ordinate our mental wealth into a whole: its scope being thus much wider than dialectic or noëtic. Ethics, teaching us how to direct the will aright, ought, above all, to take up and apply the much neglected study of the temperaments, which are of the highest importance. In Æsthetics, the two points are (*a*) how to discern, and (*b*) how to create the Beautiful. Rules can only be given under the former head; but they indirectly aid the latter. The useful arts, applications of abstract sciences, differ only by the application, which to learn requires knowledge of the nature of history. The preceding classification is logical; but the writer also gives an ontological classification of all human cognition, and a summary of the whole.] Baeumker—Handschriftliches an den Werken des Alanus. (Conclusion.) [The Lilienfeld MS. 144, f. 92^{b}-102^{a}, and the Bibl. Nationale 6552, f. 62^{a}-69^{a}, contain a work *De Intelligentiis*, the former with *Alanus*, the latter anonymous. Intrinsic proofs show that the writer was not Alanus, but a French or Spanish scholastic of about the middle of the thirteenth century, much influenced by Neo-Platonism and the Kabbalah. In No. 331 (between ff. 29 and 30) of the Amplonian Library, Erfurt, the writer has discovered a copy of fifty-nine rhymed Latin verses, which he gives to the public. They are entitled *Alani Apocalypsis*, but are not by him.] Recensionen, &c.

Rivista Italiana di Filosophia.—March-April. F. Passamonti—Morale Cristiana e morale Stoica. [*Apropos* of the work by S. Talamo, *Le origini del Cristianesimo e il pensiero Stoico.*] G. Velardita—La Delinquenza nata. [The writer advocates the theory of free-will and moral responsibility and gives an antagonistic criticism of the views of Poletti, Lombroso and others.] A. Martinazzoli—Intorno al *De Methodo* di J. Aconzio. [Gives a brief account of the *De Methodo* with a view of showing that only in its superficial aspect and external form can it be looked upon as in any way an anticipation of Descartes.] May-June. C. Cantoni—Una polemica in Francia sull' insegnamento della Filosophia nei Licei. [A *résumé* of the rather interesting controversy in the *Revue Bleue*, raised by M. F. Vandérem.] Pasquale d'Ercole—Carlo Lodoico Michelet et l'Hegelianismo. [Mainly biographical.] Vittorio Benini—La morale ed il diritto Secondo Erberto Spencer. Bibliographia, &c.

X.—NOTES.

A LOGICAL PARADOX.

By Lewis Carroll.

"What, *nothing* to do?" said Uncle Jim. "Then come along with me down to Allen's. And you can just take a turn while I get myself shaved."

"All right," said Uncle Joe. "And the Cub had better come too, I suppose?"

The "Cub" was *me*, as the reader will perhaps have guessed for himself. I'm turned *fifteen*—more than three months ago; but there's no sort of use in mentioning *that* to Uncle Joe: he'd only say "Go to your cubbicle, little boy!" or "Then I suppose you can do cubbic equations?" or some equally vile pun. He asked me yesterday to give him an instance of a Proposition in *A*. And I said "All uncles make vile puns". And I don't think he liked it. However, that's neither here nor there. I was glad enough to go. I *do* love hearing those uncles of mine "chop logic," as they call it; and they're desperate hands at it, *I* can tell you!

"That is not a logical inference from my remark," said Uncle Jim.

"Never said it was," said Uncle Joe: "it's a *Reductio ad Absurdum*".

"An *Illicit Process of the Minor!*" chuckled Uncle Jim.

That's the sort of way they always go on, whenever *I'm* with them. As if there was any fun in calling me a Minor!

After a bit, Uncle Jim began again, just as we came in sight of the barber's. "I only hope *Carr* will be at home," he said. "Brown's so clumsy. And Allen's hand has been shaky ever since he had that fever."

"Carr's *certain* to be in," said Uncle Joe.

"I'll bet you sixpence he *isn't!*" said I.

"Keep your bets for your betters," said Uncle Joe. "I mean"—he hurried on, seeing by the grin on my face what a slip he'd made—"I mean that I can *prove* it, logically. It isn't a matter of *chance*."

"Prove it *logically!*" sneered Uncle Jim. "Fire away, then! I defy you to do it!"

"For the sake of argument," Uncle Joe began, "let us assume Carr to be *out*. And let us see what that assumption would lead to. I'm going to do this by *Reductio ad Absurdum*."

"Of course you are!" growled Uncle Jim. "Never knew any argument of *yours* that didn't end in some absurdity or other!"

"Unprovoked by your unmanly taunts," said Uncle Joe in a lofty tone, "I proceed. Carr being out, you will grant that, if Allen is *also* out, *Brown* must be at home?"

"What's the good of *his* being at home?" said Uncle Jim. "I don't want *Brown* to shave me! He's too clumsy."

"Patience is one of those inestimable qualities——" Uncle Joe was beginning; but Uncle Jim cut him off short.

"*Argue!*" he said. "Don't *moralise!*"

"Well, but *do* you grant it?" Uncle Joe persisted. "Do you grant me that, if Carr is out, it follows that if Allen is out Brown *must* be in?"

"Of course he must," said Uncle Jim; "or there'd be nobody to mind the shop."

"We see, then, that the absence of Carr brings into play a certain

Hypothetical, whose *protasis* is 'Allen is out,' and whose *apodosis* is 'Brown is in'. And we see that, so long as Carr remains out, this Hypothetical remains in force?"

"Well, suppose it does. What then?" said Uncle Jim.

"You will also grant me that the truth of a Hypothetical—I mean its *validity* as a logical *sequence*—does not in the least depend on its *protasis* being actually *true*, nor even on its being *possible*. The Hypothetical 'If you were to run from here to London in five minutes you would surprise people,' remains true as a *sequence*, whether you can do it or not."

"I *ca'n't* do it," said Uncle Jim.

"We have now to consider *another* Hypothetical. What was that you told me yesterday about Allen?"

"I told you," said Uncle Jim, "that ever since he had that fever he's been so nervous about going out alone, he always takes Brown with him."

"Just so," said Uncle Joe. "Then the Hypothetical 'if Allen is out Brown is out' is *always* in force, isn't it?"

"I suppose so," said Uncle Jim. (He seemed to be getting a little nervous, himself, now.)

"Then, if Carr is out, we have *two* Hypotheticals. 'if Allen is out Brown is *in*' and 'If Allen is out Brown is *out*,' in force at once. And two *incompatible* Hypotheticals, mark you! They ca'n't *possibly* be true together!"

"*Ca'n't* they?" said Uncle Jim.

"How *can* they?" said Uncle Joe. "How *can* one and the same *protasis* prove two contradictory *apodoses?* You grant that the two *apodoses*, 'Brown is *in*' and 'Brown is *out*,' *are* contradictory, I suppose?"

"Yes, I grant *that*," said Uncle Jim.

"Then I may sum up," said Uncle Joe. "If Carr is out, these two Hypotheticals are true together. And we know that they *cannot* be true together. Which is absurd. Therefore Carr *cannot* be out. There's a nice *Reductio ad Absurdum* for you!"

Uncle Jim looked thoroughly puzzled: but after a bit he plucked up courage, and began again. "I don't feel at all clear about that *incompatibility*. Why shouldn't those two Hypotheticals be true together? It seems to me that would simply prove '*Allen* is in'. Of course it's clear that the *apodoses* of those two Hypotheticals are incompatible—'Brown is in' and 'Brown is out'. But why shouldn't we put it like this? If Allen is out Brown is *out*. If Carr and Allen are *both* out, Brown is *in*. Which is absurd. Therefore Carr and Allen ca'n't be *both* of them out. But, so long as Allen is *in*, I don't see what's to hinder Carr from going *out*."

"My dear, but most illogical, brother!" said Uncle Joe. (Whenever Uncle Joe begins to "dear" you, you may make pretty sure he's got you in a cleft stick!) "Don't you see that you are wrongly dividing the *protasis* and the *apodosis* of that Hypothetical? Its *protasis* is simply 'Carr is out'; and its *apodosis* is a sort of sub-Hypothetical, 'If Allen is out, Brown is *in*'. And a most absurd apodosis it is, being hopelessly incompatible with that other Hypothetical, that we know is *always* true, 'If Allen is out, Brown is *out*'. And it's simply the assumption 'Carr is out' that has caused this absurdity. So there's only *one* possible conclusion. *Carr is in!*"

How long this argument *might* have lasted, I haven't the least idea. I believe *either* of them could argue for six hours at a stretch. But, just at this moment, we arrived at the barber's shop; and, on going inside, we found——

Note.

The paradox, of which the foregoing paper is an ornamental presentment, is, I have reason to believe, a very real difficulty in the Theory of Hypotheticals. The disputed point has been for some time under discussion by several practised logicians, to whom I have submitted it; and the various and conflicting opinions, which my correspondence with them has elicited, convince me that the subject needs further consideration, in order that logical teachers and writers may come to some agreement as to what Hypotheticals *are*, and how they ought to be treated.

The original dispute, which arose, more than a year ago, between two students of Logic, may be symbolically represented as follows:—

There are two Propositions, A and B.

It is given that

(1) If C is true, then, if A is true, B is not true;

(2) If A is true, B is true.

The question is, can C be true?

The reader will see that if, in these two Propositions, we replace the letters A, B, C by the names Allen, Brown, Carr, and the words "true" and "not true" by the words "out" and "in" we get

(1) If Carr is out, then, if Allen is out, Brown is in;

(2) If Allen is out, Brown is out.

These are the very two Propositions on which "Uncle Joe" builds his argument.

Several very interesting questions suggest themselves in connexion with this point, such as

Can a Hypothetical, whose protasis is false, be regarded as legitimate?

Are two Hypotheticals, of the forms "If A then B" and "If A then not-B," compatible?

What difference in meaning, if any, exists between the following Propositions?

(1) A, B, C, cannot be all true at once;

(2) If C and A are true, B is not true;

(3) If C is true, then, if A is true, B is not true;

(4) If A is true, then, if C is true, B is not true.

The following concrete form of the paradox has just been sent me, and may perhaps, as embodying *necessary* truth, throw fresh light on the question.

Let there be three lines, KL, LM, MN, forming, at L and M, equal acute angles on the same side of LM.

Let "A" mean "The points K and N coincide, so that the three lines form a triangle".

Let "B" mean "The triangle has equal base-angles".

Let "C" mean "The lines KL and MN are unequal".

Then we have

(1) If C is true, then, if A is true, B is not true;

(2) If A is true, B is true.

The second of these Propositions needs no proof; and the first is proved in Euc., i, 6, though of course it may be questioned whether it fairly represents Euclid's meaning.

I greatly hope that some of the readers of MIND who take an interest in logic will assist in clearing up these curious difficulties.

THE PERCEPTION OF DISTANCE IN THE INVERTED LANDSCAPE.[1]

In his discussion of the third dimension (vol. ii. p. 213 of the *Principles of Psychology*) Prof. James notes the fact that when a landscape is looked at with the head inverted, there is a remarkable increase of the

[1] From the Laboratory of the Cornell University, Ithaca, N.Y.

apparent distance of the horizon-line. He seems to regard this phenomenon as in some way supporting the nativistic view of the "depth sensation," and in a footnote observes: "What may be the physiological process connected with this increased sensation of depth is hard to discover. It seems to have nothing to do with the part of the retina affected, since the mere inversion of the picture (by mirrors reflecting prisms, &c.) without inverting the head does not seem to bring it about; nothing with sympathetic axial rotation of the eyes, which might enhance the perspective through exaggerated disparity of the two retinal images, for one-eyed persons get it as strongly as those with two eyes. I cannot find it to be connected with any alteration in the pupil or with any ascertainable strain in the muscles of the eyes, sympathising with those of the body." He adds at the end of the note: "I cannot help thinking that any one who can explain the exaggeration of the depth-sensation in this case will at the same time throw much light on its normal constitution". It would be interesting if Prof. James would publish a more detailed account of the experiments which led him to reject the explanations he mentions in this note. A full description of the experiments when he found that "the mere inversion of the picture by mirrors reflecting prisms, &c.," does not produce the effect in question, would be especially valuable. For it seems at least possible, *a priori*, that the "part of the retina affected" may have some influence upon the estimation of distance—and in the following way. It is a well-known though unexplained fact that the height of the upper half of the field of sight is over-estimated, while that of the lower half is under-estimated (see Wundt, *Phys. Psych.*, ii. 121). The example of the inverted S is familiar. Now, if we suppose a schematic landscape representing a comparatively level foreground stretching away to a horizon-line which divides the field of sight into equal parts and above which appear mountains or other elevated objects, then when the head is in a normal position the vertical dimension of the foreground, which occupies the lower half of the field of sight, will be under-estimated. On the contrary, that of the objects at the horizon, and of the sky above, will be over-estimated. But when the head is inverted the foreground, extending to the horizon-line, will fall in the upper half of the visual field and be over-estimated, while all distant objects will be under-estimated—mountains will seem lower, &c. Size being a criterion of the distance of known objects, this latter effect, combined with the apparent lengthening of the foreground, might easily produce an "increase of the depth-sensation". Of course, an ordinary landscape presents irregularities which would greatly affect the working of this principle.

To test the explanation just stated, a few preliminary experiments were made with the help of mirrors placed at such an angle that the erect and inverted images of the view—a rather extensive one—from the laboratory window might be looked at side by side. Four persons found that, in opposition to Prof. James's results, an increase of horizon-distance was evident in the inverted image; and one of these observers, entirely unconscious of the theory at stake, judged the distance to be greater on transferring attention from the erected to the inverted picture, from the fact that the far-off hills appeared to have decreased in *size*.

More complete results were later obtained by the use of stereoscopic views, which were shown first erect and then inverted. Here again the subjects not only contradicted Prof. James's statement, that apparent recession of the horizon does not occur under these circumstances, but furnished evidence in support of the explanation offered in this paper.

The first picture examined, a view of the Aar glacier, approached very

closely to the schematic landscape described above. It represents a nearly level field of ice stretching away to mountains, the base-line of which divides foreground from background at about one-half the height of the picture. Out of ten observers, seven noticed a recession of the horizon when the photograph was inverted; two were doubtful, and one said that the tops of the mountains appeared nearer than before—that is, the mountains and sky in the reversed picture seemed to slope towards the observer as an ordinary foreground would. Out of the seven persons who noticed the effect of increased depth, six, on being questioned as to any change in the apparent height of the part of the photograph representing the foreground, said that it seemed slightly greater when occupying the upper half of the visual field. One suggested this as an explanation of the illusion of increased distance.

A second photograph experimented with is of a scene on the Killarney Lakes. The shore-line falls at about two-thirds the height of the picture, measuring from the bottom. Mountains nearly fill the uppermost third. At half the height of the picture a point of land projects entirely across, the lake appearing above and below it. Evidently the conditions are more complicated here, and we should expect less definite results. To five out of ten observers the mountains seemed farther away when the picture was inverted; two said that the distance of the projecting point was increased, and three were doubtful, or thought the distance of the mountains diminished. Among the first-mentioned five, two said that the height of the picture from the base-line to the point was increased by inverting the picture—that is, they noticed the tendency to over-estimate the upper half of the visual field; two said that the stretch of water above the point and the mountains at the top seemed shorter when the photograph was reversed—that is, they noticed the tendency to under-estimate the lower half of the field of sight. As for the two observers who found an increase in the distance of the point, one declared the height of the foreground to have increased, while the other said that the height of the background had diminished.

Finally, a view of Heidelberg and the Neckar afforded a tolerably satisfactory "negative instance". Here the horizon is very distant, low-lying and faint, and the horizon-line is at about two-thirds the height of the picture. There is no immediate foreground, the photograph having been taken from a height above the town. The lower part of the photograph is occupied by houses which are at a considerable distance from the point of view. There is nothing whatever in the picture to divide the upper from the lower half of the visual field. Eight persons out of ten found that the horizon-line seemed *nearer* when the photograph was upside down, and two noticed no change. The illusion of an approach of the horizon is easily explained. The uppermost third of the picture represents an extent of sky. When the picture was inverted this expanse irresistibly suggested a foreground of water, and owing to its comparative narrowness, and to the fact that its width was under-estimated, as soon as it was brought into the lower half of the field the horizon-line which bounded it looked much nearer than before. In the other pictures, the illusion of water did not occur, because the sky is there bounded by the curved lines of mountain-tops.

A less methodical examination of several other photographs afforded a general confirmation of these results.

Absolutely conclusive experiments on the point in question are difficult to devise, but the results just stated certainly do not disprove the theory that an error in the estimation of size may at least partly cause the observed "increase of the depth-sensation".

MARGARET WASHBURN.

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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

I.—A DIALOGUE ON TIME AND COMMON SENSE.

By Prof. Sidgwick.

I was interested in a conversation that I had, a short time ago, with a Russian Professor of Philosophy,—who, I ought to say, spoke English with a fluency rarely attained out of Russia. What interested me in our talk, when I came to think it over, was the peculiarity that while it ranged rather widely it was almost entirely occupied with the effort to explain our views each to the other, with hardly any aim at either confuting or convincing, and no sense of a cause that had to be defended or a school that might be attacked. He had never read my books and I had never read his: he was on his travels, curious to know what we thought in England: I was also curious—though perhaps not equally—to know what was thought in Russia: time was short, and as I have never myself been convinced of anything important in half-an-hour, I never expect to convince any one else in that limited space. But when I tried to write down the talk I found I had forgotten too much of it: if I aimed at exactness, the result would be meagre and uninteresting; so in what follows I have allowed imagination to supplement the defects of memory, merely trying to preserve the general attitude of our minds towards each other, and the general impression that my visitor had given of his philosophical position.

The talk began with an account of his recent visit to America, where he had been for some months: he had been much impressed with the activity with which philosophical and

psychological studies were being developed there, and the wide range and diversity of their development. One set of minds were working with transatlantic energy at the minutest problems of psychophysics, in the psychological laboratories that have sprung up like mushrooms during the last ten years or so: another set were agitating the largest questions of speculative philosophy: and my visitor's admiration seemed to be equally divided between metaphysicians and experimental psychologists.

While we were thus chatting about academic institutions and persons in America, he suddenly said, "Excuse me, but there is a question I always ask of a philosopher, which perhaps you will not mind answering. What do you think really exists?"

My first impulse was to borrow Hegel's famous answer to Cousin, when the Frenchman asked him for a succinct account of Hegelianism. But I remembered that earlier in our talk my guest had permitted himself a mild complaint of the reserve of Englishmen, as contrasted with the communicativeness of his American friends. So, feeling that our reputation for international cordiality was at stake, my second impulse was to gain time.

"No doubt," I said, "you put this question to your American friends."

"Oh yes," said he.

"And what did they answer?"

"Well," he said, "it is difficult to remember all their answers. But I think that a majority of those whom I persuaded to take an interest in the question were of opinion that God is the one ultimate reality."

"But did they all mean the same thing," said I, "or may we not rather invert the oft-quoted Greek phrase

πολλῶν ὀνομάτων μορφὴ μία

and say that, in current thought 'God' is one name for many and diverse ideas?"

I thought this might be a successful diversion; as the topic seemed both wide and attractive. But I had overshot my mark; it was too obvious an invitation to go off into infinite space; and declining this, he returned to the charge and reminded me that I had not answered his question.

Well, there was no help for it, but I thought I saw still a way of gaining time.

"Do you mean," I said, "what really exists *now*? or do you include what has existed and what will exist?"

"Ah," said he, "but that is a part of the question I am asking you. Do you think that the past really exists?"

"Well," I said, "one has to distinguish different modes of real existence. It would be absurd to say that the great study of History is not conversant with reality. So far as the historian attains truth—as doubtless he does in some degree—the past exists for him as an object of thought and investigation: but so far as it is past it has ceased to exist in the sense in which the present exists."

"Ah," said he, brightening, "then in spite of Kant you think Time really exists as a condition of things, and not merely as a form of perception. Why I thought that even your empiricists and your scientists all held now that science only deals with phenomena, and that Time is only a sum of relations among phenomena."

"I think," I said, "that you must not take our men of science too much *au pied de lettre* when they talk of a 'phenomenon.' For instance I was referring to a text-book on physics the other day, and I found 'a phenomenon' defined as 'any change that takes place in the condition of a body.' I think scientific men commonly mean by 'phenomenon' a real event that occurs in real time: they call it a phenomenon, only because the real event as conceived by their science is something other and more than the event as first perceived through the senses."

"Then," he said, "you think Time really exists, and you can conceive Time pure and simple, apart from the changes that make up experience."

"I have not said that," I replied, "but I certainly distinguish it in thought from the changes:—for I can conceive any particular series of changes going quicker or slower, and occupying more or less time: and that conception would be impossible if I did not distinguish the course of time from the course of change."

"Well," he said, "I have no wish to prove Time unreal: for the most real thing to me is my own existence: and though as a thinking, knowing being I can think myself out of Time, I admit that I can form no idea of myself as a living feeling being except under the condition of time. And perhaps my life is, on the whole, more interesting to me than my knowledge. But still—there are the antinomies. How do you get over the antinomies? Can you help me to conceive either a beginning of time or an infinite past—a 'finished infinite' as Kant says,—or any tertium quid?"

"No," I said, "I am afraid I cannot help you over that stile. I admit that these alternatives are at present both inevitable and inconceivable to me, and I infer from this that I do not comprehend past time as a whole. But to conclude therefore

that time is unreal seems to me—what is the German phrase?—to be 'throwing out the child in emptying the bath.' If Time is unreal, succession is unreal: and if succession is unreal, the interest of the study of the past is destroyed."

"Are you not forgetting," he said, "that Kant's solution of the antinomies is critical and not sceptical, and leaves ample room for the scientific study of past experience, in order to discover the general laws of the empirical world? Surely the particular succession of past events is of no interest except as a basis for scientific generalisation: the study of them is only of practical value, so far as it enables us to grasp the present and foresee the future by the ascertainment of general laws. And surely, so far as we get hold of these general laws, we have a grasp of reality which remains unimpaired, even if we grant that the element of time in our conception of these laws is due to the necessary form of our apprehension and does not belong to the reality of things."

"I admit the force of what you say," I replied, "so far as the empirical laws with which physics and chemistry deal are concerned; though by the way I do not think the Kantian theory will explain why we succeed—so far as we do succeed—in discovering these laws. Kant explains ingeniously why we inevitably *seek* for the causes of phenomenal change, but not why we *find* them. However putting this aside, and granting all you say, I do not think the interest of human history is saved by it. For the interest of human history lies not merely in the general laws of change that we can discover in it, but in the general fact of progress through stages each different from the one before. If time is unreal progress is unreal, and if progress is unreal the interest goes."

"Still surely," he said, "the important point for *practice* is that we should discover the general laws of social change and be able to foresee what is coming."

"Well," I said, "I will follow you into the region of practice. Surely all our notions of practice become unmeaning if you suppose time to be unreal—a mere form of our apprehension. I always feel this in reading Kant. So long as he is engaged with his destructive work I can get on with his 'things in themselves': but when he tries to become constructive on the basis of moral experience I feel that all the fundamental conceptions he uses—the conceptions of rational action, springs of action, means and ends and so forth—become altogether unmeaning if his view of time be accepted. The real man, in Kant's practical philosophy, seems to me a being who, in an unintelligible position out of time, makes an absolutely incomprehensible and unaccountable choice of partial irrationality.

A more unexplanatory explanation of the mystery of our fallen nature it is impossible to conceive."

"I agree," said he, "that time is indispensable to my notion of human action—and human life generally. But the case seems to me quite otherwise with knowledge. The knowing subject, that combines experiences in time and space and so makes a world—surely we necessarily conceive that out of time. Time belongs to the object of knowledge, and therefore not to the knowing subject as such."

"Let me see," I said: "Time is an object of my thought, therefore the subject of thought is not in Time. Is that the argument?"

"Something like it," he said; "an object or condition of the object."

"Suppose," I said, "that we consult your American friends who say that the ultimate reality is God. God then is an object of thought—*the* object of thought—to each of these philosophers; yet surely no one would say that he was therefore out of God. You, on the other hand, say that self is to you the most real existence; in thinking this you make yourself an object of thought, but you are not therefore out of yourself. Why are you any more out of time?"

"I don't think the cases are analogous," said he: "at any rate, I do not find that your argument convinces me. For my own part I am not a Pantheist, because—as I said—what is most certain to me is my own existence as an individual; and though I know I am not the whole of things, I cannot feel sure that all the rest is God. But still less am I an atheist: for when I consider my relation as a thinking being to Truth, I find myself irresistibly led through Finite Thought to the conception of Infinite Thought, and so to an Infinite Thinker of Infinite Truth, of which the truth apprehended by me is only an infinitesimal part. Now truth is essentially unchangeable, otherwise it would not be truth—though it may relate to things subject to change—hence as Time is essentially changing, in laying hold of truth I carry myself out of time, and accordingly I have to conceive God, the Infinite Thinker, as essentially out of Time."

While he was speaking, I took out my watch. "You say," I answered, "that you are more certain of your own existence than of anything else. Well, I am as certain as I am of my own existence that my ideas about Truth, Infinite Thought, Infinite Thinker, as avowed by your words have occurred in succession between 5 and 6 minutes past 3 on the 20th of April 1894—or at some other definite point of time, for my watch is not infallible—and, further, that these ideas would not have been what they

actually were, had they not had as essential antecedents other ideas which have occurred before at definite points of time. Granting that Truth is not subject to change, my intellectual life is as much subject to it as any other element of my life."

"Well but," said he, "what do you say of God's existence?"

"I say as little as I can," I replied, "under this head; since the relation of God to time is one of the things that I do not understand."

"In short," he said, "you do not believe in a Divine Being out of Time."

"I have not said that," I rejoined; "I am led by the same consideration of Truth that you gave just now—but especially by a consideration of ethical Truth—to regard a belief in a Divine Being as indispensable to a normal human mind; and though I may not always keep this in mind in philosophical speculation, I was a man before I became a philosopher, and I do not forget it for long..."

"Well," he said, interrupting, "I have no wish to dispute the correctness of your attitude as a man and a citizen. But we are talking philosophy now, we are not talking about beliefs practically necessary for the plain man or the good citizen; and in any case you can hardly say that it is normal to humanity to believe in a God out of time. The good people who go to church believe in an everlasting deity, enduring through time, not out of time."

"Yes," I replied, "but I understand that the better opinion —as lawyers say—among students of theology is that the efflux and succession of time takes place only for finite beings and is not a condition of Divine existence; and I respect this preponderant opinion,—although I am unable to share it, because what it affirms is to me inconceivable. I follow these theologians in conceiving the past and the future as simultaneously present in knowledge to the Divine Mind; but I am forced to conceive this presence of all the known to the Infinite Knower as perpetual, if I would avoid conceiving it at a point of time."

"You will pardon me," he said, "the question I am about to ask; I know some of you English philosophers are anxious to keep in touch with orthodoxy—I found this also in America—and I do not wish to be indiscreet. But, between ourselves, do you think the theologians really know anything about the matter?"

"You need not be afraid of indiscretion," I said, laughing. "For if I were more concerned about my reputation for orthodoxy than is in fact the case, I could still answer your question in the negative and yet claim the support of many highly orthodox persons; who would emphatically and piously declare that

the human mind was not intended to find an answer to such questions as these, and that to ask them was a sign of idle—and perhaps worse than idle—curiosity. Indeed I think the prevailing opinion of theologians at the present time would be in favour of giving these transcendental inquiries a wide berth."

"I thought," he replied, "you said that the preponderant opinion was inclined to regard the Divine existence as independent of Time."

"I meant," said I, "the preponderant opinion of persons who had thought seriously about the matter; I never attach importance to a man's judgment on questions he does not care to consider."

"Well but," he said, "you seem to attach importance to the movement of what you call the normal mind in these matters; and if the normal mind of religious persons is moving away from certain questions—it would not affect me in the least, but ought it not to influence you?"

"I think it would affect me more," I answered, "if I had not observed that the normal mind seems to move about these questions in a spiral way; so that the philosopher may avoid too wide a divergence from it, and save himself unnecessary motion, by keeping nearer the axis of the spiral."

"That depends," said he, "on the goal he wants to reach."

"I think we are agreed," I said, "on his goal; which can be nothing less than to understand the whole of things. To do this I think he must try to get the whole of our normal thought free from confusion and contradiction; and therefore not ignore the answers given by Theology to any questions he is led to ask, any more than he ignores the answers given by physicists to questions about the material world. For Theology is the result of the efforts of generations to understand the universe as manifested in the religious consciousness, just as sciences are the results of the similar effort to understand it as apprehended through sense-perception."

"But surely if one finds the answers of theology confused and contradictory, it is a sign that the method is altogether wrong. You would not surely maintain that there is similar confusion and contradiction in the fundamental conceptions and methods of physical science?"

"Your former question," I said, smiling, "was not indiscreet, but this one, I am afraid, is; or is it with deliberate malice that you are tempting me to provoke more formidable antagonists—at the present time—than theologians? But I think I see a pacific way of answering. I think we shall agree that two centuries ago—or perhaps even a century ago—the fundamental notions and methods of natural science had not been brought to

the condition of clearness and consistency that they have now reached; yet surely it would have been unphilosophical then to throw their methods and conclusions aside, and not rather to endeavour to aid in clearing them from confusion and contradiction. And that is how I would deal with theology now, and with other subjects besides theology—for instance ethics and politics."

"I am not sure," said he, "that I understand your view of Philosophy. You think it the business of philosophy to put together a number of different sciences and arts—or whatever you call them. But will they not be an aggregate rather than a whole, and the student a polymath—as we call it—rather than a philosopher?"

"I should not exactly say 'put together'," I replied, "as that would imply that they were not already in intimate and essential relation—and if that were so, the task of the philosopher would doubtless be impossible. I should rather say 'exhibit the essential coherence which is now somewhat latent and obscured in their relations.' The philosopher may not succeed in this, but the polymath—as you call him—does not try."

"Well," he said, "I rather fear that your philosopher will get bewildered and lost in the multiplicity of the bits of his puzzle. I had rather aim directly at the whole: find out and make clear the fundamental conditions of its being a whole for *me*—my whole, my universe—since I must begin from myself; and having made this out, then descend to particulars and connect them while distinguishing them by their varying relation to these fundamental conditions."

"Well," I said, "the world is wide both for living and for philosophizing. I am glad you feel energy enough for this adventure, which grows more daring as the world grows older. *Ex Oriente Lux!*"

He looked dreamy but hopeful. Then a thought struck him and he said, "But I do not see that you have after all told me what you think really exists."

"Do you not think," I replied, "that it is now time for you to go and ask this question of some other Cambridge philosopher?"

He looked at his watch and assented; we rose and went downstairs: and as we bent our steps westward through the grounds of the college, I occupied his mind with a series of questions about the academic institutions of Russia.

II.—AN ANALYSIS OF ATTENTION[1].

By Alexander F. Shand.

The object of the present article is to point out an ambiguity in current psychological theories of attention. Through it psychologists have often presented a confused view of their subject, true or false according to the interpretation of their words; but where they have been clearest, they have been led to formulate a mistaken theory of the effects of attention, in order to account for the predominance of its process. When the different meanings implicit in this ambiguity are once distinguished, they readily lead the mind to a right appreciation of that predominance in which, in one way or another, selective attention undoubtedly consists.

I.

Attention has sometimes been confused with that to which we attend, commonly called the object of attention. Thus James Mill says "a pleasurable or painful sensation is said to fix the attention of the mind. But if any man tries to satisfy himself what it is to have a painful sensation, and what it is to attend to it, he will find little means of distinguishing them.... The feeling a pain is attending to it; and attending to it is feeling it"[2]. And again, "the stronger sensation is the stronger attention"[3]. Condillac held also the same opinion. If, he says, among a crowd of sensations, there is one that predominates by its vivacity, that becomes attention. On the other hand this view has been strongly contested, Prof. Ribot maintaining that the mere intensity of a sensation is not attention. "L'attention a un objet; elle n'est pas une modification purement subjective; c'est une connaissance, un état intellectuel"[4]. Höffding similarly argues that a predominant sensation presupposes the activity which is attention, "but is not one with it"[5]. And Mr Stout adds that, when a "sensation is so intense as practically to occupy the whole field of consciousness"[6], selective attention

[1] Part of this paper was read before the Aristotelian Society.
[2] *Analysis*, vol. ii. pp. 363, 364. [3] *ibid.*
[4] *Psychologie de l'Attention*, p. 7.
[5] *Outlines of Psychology*, Eng. trans. pp. 120, 121.
[6] "The Process of Attention," from MSS. of Mr Stout's forthcoming book, parts of which he has kindly allowed me to read.

ceases. Whatever conclusion we may come to in respect of this distinction between attention and its object, we may take this much at starting, that the sensation or representation attended to is the result of a complex psycho-physical process by which the predominance imputed to it is partly brought about. Were there no other distinction between attention or attending and its object, we could still distinguish them as we distinguish a process from its result or product.

I shall first criticise the theory that the tendency of attention, regarded as a process, is to render its object or product predominant. Several distinct traits are noted in this predominance. The sensation or representation attended to is held to become more intense and clear, to acquire greater power of expelling ideas or sensations opposed to it, and, on the other hand, of evoking and combining with all ideas which further its superior intensity and clearness; lastly, as a result of this, it is held to acquire greater stability.

But how are these various effects of attention observed? There is a difficulty in this connexion which should not be overlooked. If we affirm that attention increases the intensity or clearness of the sensation attended to, this presupposes a comparison of the sensation before and after we attend to it. But this comparison seems to require attention both to the earlier and later state of the sensation.

We may get over this difficulty in two ways. 1. We may argue that we do not need to specially attend to the earlier state of the sensation. Around the narrow area of attention we have a wider, if vaguer, awareness of objects; and this is sufficient to tell us that any idea or sensation, before we attend to it, is weak and confused compared to its state after we attend to it. This answer, it must be admitted, is not conclusive. For inasmuch as this wider consciousness of objects is vaguer than the consciousness that we have through attention, it is proportionally dubious and untrustworthy. And it is to remedy this defect that we specially attend. Consequently we can place little reliance on the deliverances of this general consciousness unless corroborated by the results obtained through selective attention. But in the present case how can this corroboration be obtained? The second answer attempts to furnish it.

2. The effects of attention are cumulative and not discharged all at once upon the idea or sensation attended to. We can therefore take the object at the moment we first attend to it, and compare its first state with the changes which overtake it through the prolongation of attention. Or we can compare a sensation to which we attend with some other outside the area of attention by directing momentary glances at the latter: the

same argument being taken that, by such momentary acts of attention, we do little to disturb the state of the sensation as it is in pure inattention.

We often employ both these methods in judging of the effects of attention, and quite spontaneously. We have a general feeling of the vagueness of everything outside the area of attention, and we verify this experience by side glances at objects upon which the mind is not concentrated.

There is also some psychological warrant for the second answer. If we attend to an obscure idea it is not all at once that it is raised to clearness. If we prolong attention to a fixed visual sensation, it is not all at once that it is obscured. We do not all at once succeed in giving steadiness to a wavering idea, or in transforming the faint suggestion of something past into a clear remembrance of it. We may conclude that, at least in many cases, the changes which overtake an idea or sensation occur at an appreciable time after it has been first attended to. Whether these changes are rightly ascribed to attention is what we have now to consider.

These changes are recognised to be due in great part to motor processes—to movements of the face, head, limbs or body—by which the object is brought near to us and the sensory organ accommodated for it. Hence the doctrine that attention is a psycho-physical state. But as Prof. Helmholtz observes, "attention is quite independent of the position and accommodation of the eyes, and of any known alteration in these organs: and free to direct itself by a conscious and voluntary act upon any selected portion of a dark and undifferentiated field of view"[1]. Thus if I attend to a marginal sensation while the eyes continue accommodated for an object in the centre, I do not find, as Stumpf has observed, that its intensity is increased. What it was like before I attended to it, and whether at the very moment of attention it was raised in intensity, I have no sure knowledge. But a certain result which comes with attention is obviously cumulative, and not disclosed all at once in the sensation. For as I prolong attention, it grows fainter, unsteadier, and has even a curious way of disappearing altogether. How is this reconcilable with the theory that the tendency of attention is always to increase the intensity of the sensation, when the only cumulative effect we are able to observe is of an opposite character? In respect to 'clearness,' "There is no question whatever," says Prof. James, "that attention augments the clearness of all that we perceive or conceive by its aid"[2]. Yet it is not only possible to

[1] *Physio.-Optik*, p. 741. Quoted by James, *Psychology*, vol. i. p. 438.
[2] *Prin.* vol. i. p. 426.

raise the question, but, in certain cases, to obtain an answer which contradicts this supposed universal tendency of attention. Does the above marginal sensation, while it is losing in steadiness and intensity with prolongation of attention, show an increase in clearness? Obviously it becomes more obscured with its growing faintness, and at last loses all marks that distinguish it from surrounding sensations, and becomes merged in them. That this result is not due to any relaxation of attention is obvious from the fact that it is only by close attention to the sensation that I am able to follow the process of its obscuration and extinction.

We get similar results with other visual sensations. An increase of clearness and intensity ensues on accommodation; but after this process is complete, it is hard to detect any further increase. As in the last case, with prolongation of attention the sensation tends to grow obscurer and fainter. No doubt this is due to a loss of accommodation; but it is as much the effect of attention, as the clearness which follows accommodation. For as attention may stimulate, so where it is prolonged, it may fatigue the sense-organ, and lead to change or loss of accommodation. Thus it produces either increase of clearness or obscurity, according as it effects the one result or the other. Attention is, therefore, independent of sensory accommodation which, as Mr Stout says, "is merely an arrangement for intensifying and detaining sensations"[1]; and is not of the essence of attention. Yet Prof. James contests this obvious conclusion. Referring to the case of the marginal sensation, he says "accommodation exists here as it does elsewhere"[2] because the eyes being accommodated for one object while we attend to another, we must also attend in some degree to the first to counteract the spontaneous movement of the eyes to the second. The example is, then, one of diffused attention, and sensory accommodation is still present. But the attention is divided rather than diffused. All the intervening sensations between these two in the centre and on the margin are not specially attended to. We severally attend to these two separated sensations, accommodation is found for the one in the centre, but not for that on the margin.

But the experiment can be conducted so as not to oblige us to attend to both sensations. If instead of straining to accommodate the eyes for a central object, I merely look in a given direction without fixing any object there,—as in reflecting,—then I can give my whole attention to the marginal sensation. My eyes may still be accommodated for some invisible and

[1] *Loc. cit.* [2] *Prin.* vol. i. p. 438.

distant point, but I certainly do not attend to it. I attend exclusively to the marginal sensation for which there exists no accommodation.

Passing next to another class of sensations—I attend to the sensation of some part of the body; but I do not find that after attention it grows clearer or more intense. Sometimes I observe in it a faint pulsation—a waxing and waning of intensity. But the increase of intensity is as much or as little the effect of attention as the alternate diminution. It is known that if we listen to the ticking of a watch, placed so as to be just in hearing, this rhythmic pulsation is clearly marked. For, from moment to moment, the sensation is extinguished, alternating between appearance and disappearance. Which of these changes is the effect of attention, or is neither or both? We can find no legitimate excuse for selecting the increase and rejecting the diminution and extinction.

In sensations of taste and smell, it seems, at first, that we are able to verify the theory. But, as in visual sensations, the adjustment of the sense-organ explains the increase. By movements of the tongue and pressure of the object against the palate, the sensation of it becomes more distinct. But we can inhibit this motor process, while still attending to the sensation. In that case, I find a rapid loss of clearness. The sensation loses its distinct quality, and even tends to lose its class-distinction as a sensation of taste, and to relapse into a sensation of pressure, weight, or temperature, or still lower into a mere sensation of a part of the body. The result is similar in sensations of smell. We increase the clearness of the sensation by inhaling the odour through the nostrils, but if we inhibit this motor process, while still continuing to attend, the sensation relapses. The degree of its clearness is dependent on the degree of inhalation, not on the degree of attention.

We find, then, in a general review of attention to sensations, that each of the senses yields facts in opposition to the common theory. But, in the case of ideas or representations, it may be thought the case is different. Attention to them is normally followed by an increase of their clearness and stability. Still even here there are exceptions; and it will not be difficult to show that where the normal increase takes place, this is not due to the essential process of attention, but to its variable components. Interest and reproduction are perhaps always involved in the process of attention, they are essential to it, but the *set* of the interest, and the *character* of the reproductions involved, are variable components of its process. Above all, the set of the interest is the main cause which determines whether the idea attended to shall or shall not increase in distinctness and

intensity. For instance an idea attracts the attention. It is vague and fluctuating at first compared to what it becomes later. And it becomes clearer, because I am interested in making it clearer. My interest in the initial obscurity of my ideas is derivative, not direct. I expect them to grow stronger and clearer, and it is to that end that my interest is set. This set of the interest tends to work out its own accomplishment, through control of the reproductive and motor processes: and it is the normal set of the interest both in respect of ideas and sensations. A child sees his father in the distance; he is not, like a psychologist, directly interested in that obscure sensation; he runs to his father as fast as his legs will carry him, he wants the clear visual sensation, and in place of the vague ideas of touch and pressure, the distinct reality.

But as psychologists the set of our interest may be different. It is most important for us to observe ideas as they are, and not to transform them into something different. Vague ideas have to be attended to as well as clear ideas. But according to the common theory, attention must always falsify and tend to confuse them with the very class from which they are to be distinguished. The different set of the interest has not been taken into account. For here we occupy the position of a spectator; our interest is to leave the ideas alone, and not to change them by evoking other ideas which may give them steadiness and clearness. On the contrary we strive to inhibit any reproductive or motor process that has this tendency. If the idea go out, well, let it go out. Watch its dissolution with the same interest you take ordinarily in its organisation. And so the different set of the interest will tend to work out a different result from that in the ordinary case. However closely you concentrate attention, you will not find as a rule an increase of clearness; the idea is as likely, because you let it alone, to become obscured and extinguished, as to increase in clearness and intensity.

And it is the same with volition in cases of voluntary attention. It depends on the object of the volition what effect it has on the idea. Of two types of volition, the object of one is to change the idea attended to,—to realise it in sense-experience, to give it greater force and clearness or to use it as a coordinating centre of other ideas. The object of the other is not to change the idea, but to observe it and understand it.

But it may be thought that if we regard interest somewhat differently, we shall reach an opposite conclusion. Analyse it into pleasure and pain: pleasure and pain intensify the idea or sensation which they qualify. Pleasure and pain or interest

being an essential constituent of attention justify the ordinary theory of its effects. But in the first place pleasure-pain has not always this tendency; in the second place interest is not wholly analysable into it. Bodily sensations qualified by pleasure or pain are increased in intensity, and stand out more clearly from surrounding sensations than these do from one another. Ideas, too, when they are felt as pleasant, seem to gain in clearness as well as intensity. But where they are painful we get opposite results. In morbid states painful ideas haunt us, and through their painful quality obtain an extraordinary strength and clearness. Still the normal effect of pain is to diminish the clearness of the idea, to weaken its hold on the attention, to stimulate other ideas which are not painful. Ideas may become painful through fatigue, disgust, or failure, yet we may voluntarily attend to them through psychological or practical interests. The influence of these depressing pains will then be to diminish the force and clearness of the ideas. Thus we must allow that we do not always attend to pleasant ideas, but also to ideas which on the whole are painful, whose influence is to weaken and even efface the ideas attended to.

But we also attend to ideas that we may not feel, at the time, to be either pleasant or painful, but which we are interested in, because we connect them with our own good or that of others. The opinion we come to on this point will mainly depend upon our ethical convictions. If our interest in an object—our identification of it as good—is not always constituted by its direct or indirect pleasantness, then this interest may hold attention to an object which is neither pleasant nor painful, and may even overcome the neutralising influence of pain.

I have tried to show that the interest involved in attention has not always a tendency to increase the clearness and intensity of the ideas connected with it, and that whether it has or has not this tendency depends on its variable components, (1) on the set of the interest, (2) on the influence of pleasure and pain.

The second variable component of attention is the character of the reproductive process involved. But many will think that all reproductions, whatever their character, tend to increase, at some point, the clearness of the ideas or sensations fused with them. As in a compound photograph, so in the case of ideas, fusion will tend to accentuate their common qualities and to obliterate their differences. But supposing the ideas are such as 'ordinary,' 'cheap,' 'insignificant,' 'weak,' 'obscure,' what will be the influence of their fusion with other ideas or with sensations? A simple youth drinking a 'vin

ordinaire' with the imposing label of some 'château' brand on the bottle transfers to the common article a delicacy and distinctness of flavour which it does not possess. But were the same youth given a fine wine without any such advertisement, or told that it was cheap and ordinary, how much of its distinct flavour would be obliterated? And with most of us the influence of such a preconceived idea fusing with the sensation would be to diminish the clear flavour of the wine. One who respects only the position or wealth of other men sees nothing of the distinct physiognomy or character of an insignificant person. The concept 'insignificant' fusing with the sensation of his appearance has wiped out the poor man's claim to individuality. When we have come to think that an author's views are obscure and confused, this preconceived idea tends to obliterate any clear idea that might have been suggested by him. And when an obscure sensation or image is fused with the idea of obscurity, this fusion by increasing the common quality will tend to efface the image or sensation. Thus it seems certain that there are reproductions that weaken and tend to efface the ideas or sensations with which they blend.

But were it otherwise, reproduction is not distinctive of attention. Both sensations within and those outside the area of attention are assimilated. Reproduction is a general, but attention a special, process. And what we have to show is that attention as a special process does tend to increase the clearness of an idea over and above the degree of clearness that would be produced in the absence of attention. Still selective attention may be held to be brought about by that one among our ideas or reproductions which at the time is dominant. Attention, says Mr Bradley, "at any rate means predominance in consciousness"[1], and the "machinery" which effects this result "consists of an idea which is able to dominate, and so fixes an object connected with itself"[2]: and the way it works is "by reintegration and also by blending"[3]. "If an idea is pleasing, that idea may engross us, and if an indifferent sensation suggests the idea, the idea on its side will affect the sensation and cause it to dominate"[4]. Now it is obvious that this theory will only explain those cases of attention in which the idea or sensation attended to is dominant. If the "dominant idea," in the influence of which attention consists, dominates in intensity, then the "object connected with itself" to which it "may lend its force" may dominate also in intensity. But the object attended to does not always predominate in intensity. If the idea dominates in

[1] *Mind*, xi. p. 306.
[2] *ibid.* p. 312.
[3] *ibid.* p. 310.
[4] *ibid.* p. 310.

clearness, then it may transfer to the object its superior clearness. But the object attended to does not always predominate in clearness. If the idea dominates in strength of repressing hostile ideas and in combining with those in harmony with itself, then it may transfer to its object its dominant strength in this respect. But the sensation or idea attended to may be so weak that, far from predominating, it is overcome and extinguished.

To sum up: if the essential process of attention has no tendency to increase the strength and clearness of the object attended to, still less does it render that object predominant, and therefore the process which has this tendency and the "dominant idea" which effects this predominance, and the sensations of strain that may accompany it, are not the process of attention. They are no more than variable components of that process; they do not constitute its essential and distinguishing character.

There is a case which well illustrates the opposite effects which often follow from attention. While attention to our pleasures—to observation of their degree of pleasantness—sometimes diminishes their pleasantness, attention to pain seems to have the opposite effect of increasing its painfulness. Yet this effect is not universal. It is not due to the essential process of attention, but to variable components of that process. It depends on how we look at the pain, how we conceive it, what reproductions are involved. A consistent Stoic believes that pain is an indifferent object; and although it may involuntarily absorb his attention, yet the steady way in which he contemplates it, his conviction that it is an apparent but no real evil, the strong and repeated resistance to the natural fusion of the idea 'evil' with the painful sensation, all tend to diminish the force of the pain. And if there be few in the modern world who sincerely accept the Stoic paradox, yet we most of us have a somewhat similar experience. It belongs or belonged to the education of all Englishmen to learn to make light of pain, to face it unflinching, and when present to minimise its force, as the weak and timid magnify it. Now this idea of the brave man that pain is of small importance, compared at least to courage and truth and honour, will always operate to weaken the force of pain. Fusing with the sensation, it will be one of those reproductions, examples of which we have already given, that diminish the intensity of the sensation, that weaken its hold on the attention, and therefore indirectly strengthen the will to concentrate attention elsewhere. We commonly give this new direction to the attention where we can, because, by a particular set of the interest and

attention, we can so increase the clearness and force of other ideas and sensations, that the painful sensation is, for a time at least, overwhelmed by them. But there are degrees of pain that will not allow of this, that lie, as it were, between the pain we can turn away from and control and the pain that sweeps away all attention and thought, and constitutes itself the one reality for us. We are compelled to attend to these intermediate degrees of pain and to make them the objects of our thought: or at least if we can control them at times, at others they sweep back upon us and command our attention. Then there is nothing for us but to look the pain in the face, and to put into practice those stimulating English maxims that we have all learnt. It seems to me undoubtedly the case that, so far and so long as we can do this, the intensity of the pain is diminished. And it is diminished by the process of our attention; not by that which belongs to the process essentially, but by certain variable components. There is an element of conscious volition, a strain of fine sentiment sometimes, and the constant influence of those reproductions that by fusion with the sensation diminish its intensity and force. But this effect of attention depends largely on the strength of character and on our beliefs and principles. If the idea of constancy in pain has no hold of us, if we believe that pain is an unmixed evil, that its evil is so deep-rooted and extended that it can scarcely be exaggerated, that the will cannot stand against it, that it has no use or meaning, the tendency of these ideas must be to intensify the pain they are fused with; and, therefore, the attention into which they enter as components will also have this tendency.

II.

In the first part of this paper I have tried to make clear the distinction between the essential process of attention and its variable components. It enables us to explain the opposite effects of attention in particular cases, while the commonly accepted theory finds itself in flagrant conflict with well-ascertained facts. The theory too fails in another way. In many cases, however we set the attention, we cannot raise an idea or sensation to such a degree that it predominates over all other mental contents. We can only raise it within narrow limits. In what then does that predominance consist in which attention is held to consist? The theory has no clear explanation forthcoming: it can only reiterate that attention as a state of mind is characterised by predominance.

There is an ambiguity which pervades all that is written on

this subject of the predominance of attention, and of the superior clearness, intensity, and stability which constitute it. In a sense it is undoubtedly true, that attention, as Mr Bradley says, "at any rate means predominance in consciousness." In a sense the statement of Prof. James is equally true that "there is no question whatever" that attention increases the clearness of our perceptions. We have excluded the sense in which these statements are certainly false, what is the sense in which they are obviously true?

When I attend to a sensation on the margin of the visual field without directing my eyes to it, this most obscure sensation does not become clearer in shape or colour, but I become more clearly aware of this obscure sensation. If it grow fainter with prolongation of attention, my awareness of it does not therefore grow fainter, nor more obscure with its obscuration. I may watch intently a retreating figure in a crowd, or listen to a chord of music dying away; and by concentrating attention I become clearly and intensely aware of sensations that become ever more faint and obscure. I hold up two fingers before me. After a little time they are obscured. They fade into one another. They are multiplied to four or three, or reduced to one. They move and change, and are superposed on one another. They grow semi-transparent. And all this I know only through attention. By its stability their unstability is observed, by its persistence their changes, by its clearness their confusion. When I both look at and attend to the fire-light, I am clearly conscious of the play of the flame, of its luminous intensity, of the spiral movement of the smoke. When I attend to it, but look in another direction, I am as clearly aware of the sensation as before, but note *its* comparative obscurity. When again I am looking at the fire, but only as the background of ideas on which I concentrate my attention, this luminous sensation may still be more intense than the object of my thought, in comparison with it the ideas to which I attend may be weak, obscure, unsteady, still I am more intensely conscious of these faint ideas, than of the intense sensation of the fire-light. And, in beginning to think, it is owing to a clear awareness of the initial obscurity of my ideas, and to the set of my desire for clearness, that the psychical process is stimulated by which they are transformed into clear ideas. Yet I am not more clearly aware of them after their transformation when they are clear, than before it when they were obscure. I attend as much at the beginning of the process as at the end, and the process itself by which the transformation to clearness is effected is not the essential process of attention. The clearness in which attention consists is the clearness of another factor, and

the degrees of its intensity and clearness are independent of the degree of intensity or clearness of that which it contemplates. In the state of ennui from which idle people suffer, through lack of interest in everything, selective attention almost ceases. For such, to apply the words of Prof. Ribot, "il ne pourrait exister.....que des états plus intenses que d'autres, ce qui est tout différent"[1]. Throughout the day the eyes are successively accommodated for a variety of objects which thence obtain their maximal distinctness, apart from changes of light, atmosphere, and distance. Yet does not this distinctness suffice for attention, nor the motor process which accomplishes it, because the essential clearness is absent, because of all that takes place there is only an obscure awareness, and of what results a rapid forgetfulness. But in childhood, through the keen interest which is felt for every new object, the attention is constantly exercised.

This then is the truth which the theories contain that attention always means "predominance in consciousness," and always effects an increase of clearness and intensity. For attention is always a predominant awareness of some object in comparison with others, and attention always raises our perceptions to a higher level of clearness, and intensity, and as this is its positive effect, so its negative and inhibitory effect is essentially, not to obscure and weaken the ideas and sensations outside its area, but to obscure and weaken our awareness of them. We have no direct means of judging as to what happens to these outside-sensations and ideas. Introspection fails us here, because introspection presupposes attention.

Taking the distinction between the clearness of our ideas and our clear awareness of them, as an incontrovertible fact, we have now to attempt the much more difficult task of interpreting this distinction. Let us first note that the clearer awareness of an object which invariably follows from attention to it is not so much the result of attention, as it is attention its very self. When for instance, after attending to A, I attend to B, it is true that there results from the change a clearer awareness of B and a loss of the clear awareness of A. But this clearer awareness of B *is* my attention to it, as the loss of it in respect of A is the cessation of my attention to A. If this clearer awareness seem also to follow after attention, it follows after it only in the sense that attention follows after attention, whose succeeding moments are often clearer and more complex than the earlier.

Now what is the most striking consequence of this dis-

[1] *Psychologie de l'Attention*, p. 14.

tinction between the clearness of sensations or ideas and the clearness of that which takes cognizance of them? It is that in attention there is a constituent that is not found in the sensations attended to, or in the incorporation with them of reproduction or representation, or in the free play of representation. All these may be at different times attended to; but we cannot explain attention by their predominance and clearness. The clearness in which attention consists is the clearness of another factor; and this factor has a very different character from these. The one we express naturally in a verbal form, the other in a substantival. And when we employ a noun for the first, it has a changed and unnatural appearance, as if we had thereby transformed it into one of these other factors. The 'I am clearly aware' becomes 'clear awareness'; the 'I am attending,' 'attention.' It then seems to obtain a certain independent and completed existence, whereas in the verbal form, 'I am aware,' there is suggested a reference beyond itself to something other than itself. And this suggestion is justified: the 'I am aware' or 'attend' is incomplete, and no better than an abstraction, without the 'other' to which it refers, and this 'other' is just some one among the factors to which we referred just now, which share with the first factor the characters of clearness and obscurity, but which have no share in its unique character of a reference beyond, or attitude to something other than itself.

Now this attention or more properly 'attending' which has this character, in common with all that appertains to the subject, and in distinction from all outside itself to which this subject refers, this constituent 'attending,' is it an element or is it complex and further analysable? We can certainly detect in it the presence of apperception, or the identification of that to which we attend and all thought about this object. As Mr Stout says, "every presentation which is attended to is also apperceived"[1]. When I attend to an object new to me, it is with an impulse or desire to know something more about that object, and the acquisition of this knowledge is an obvious result of attending. But apperception is not distinctive of attention. In ordinary cases the process of assimilating new impressions, as well as the identification of the object which results from this, takes place without attention, without our being clearly aware of what is happening: on the other hand all attention seems to involve assimilation and identification. If I see a sign-post in a road, seeing and identifying it as a sign-post take place instantaneously without requiring special

[1] *Mind*, xvi. p. 30.

attention. If the road is familiar, and there is nothing unusual about the sign-post, I pass it by. But if the road is new to me, and I am interested in knowing where it leads, the sign-post is further identified as connected with my present interest. Then arises attention, and after it and as its result, the new knowledge that a town or village with a certain name will be found in the direction indicated. This new knowledge or apperception, the end of my interest in the sign-post, completes the process and liberates the attention. Thus apperception precedes attention, is continued throughout its process, and afterwards survives it; and therefore does not distinguish it. Yet it must be admitted that the apperception contained in attention is of a higher order than the apperception outside its area. In the total mental process of the moment, only that part forms the process of attention which is systematised by reference to the same object. And thus we reach the view of Mr Stout that attention is distinguished by its "systematic complexity"[1]. Still there is systematic complexity outside the area of attention. All perception involves the reference to a single object of a variety of qualities: and in the case of weak minds whose attention is very unstable the degree of complexity of the process is perhaps little in excess of their inattentive perceptions. It is with powerful intellects that we mark the systematic complexity of the attention; and this is due to its prolongation upon the same object, and also partly to what Mr Stout calls the "mental preformation," to the degree of our previous experience and knowledge of the same object, depending on many antecedent acts of attention. Such attention is certainly characterised by "the systematic unity of its successive phases"[2]. But if we ask what it is that distinguishes attention, whether it last a moment or be prolonged to hours, whether the object be new to it or comparatively familiar, then we shall find that it is not so much its higher degree of complexity and unity, as it is that the systematic complexity of the perceptions outside the area of attention is vague and indefinite compared with the perception within that area. It is hard for any one to say how complex these processes are to which we are not attending; but we can all say how vague is our awareness of them. Because of this very vagueness we can form no scientific judgment about them, for the indispensable requirement of such a judgment is that they should be brought within the area of attention. But we can observe the cumulative effect that follows from the prolongation of attention

[1] MSS. of forthcoming work.
[2] G. F. Stout, MSS. of *Principles of Psychology*.

and from oft-renewed acts of attention to the same object,—how complex grows our awareness, and yet how coordinated and unified are all its thoughts. Thus the systematic complexity of the process of attention is a cumulative effect of attention upon its own process,—a kind of deposit which each act of attention leaves behind and which is taken up and utilised by succeeding acts, which ever grows with the growth of our attentive experience. It is an effect which each moment of attention tends to produce in the moment of attention which succeeds it, wherever they are both concerned with the same or a connected object. But that which distinguishes every moment of attention as such, apart from the poverty or richness of its inheritance from preceding moments, from the whole field of inattention, is the relative clearness and intensity of its apperception.

But attention only partly consists in this apperception. Before a visual sensation can be identified, it must be intuitively apprehended. Before that reference beyond the sensation to a class is possible, there must be a direct reference to the sensation itself. We call *this* awareness 'feeling' or 'immediate experience,' as the most natural term for the other is 'thought.' Neither is distinctive of attention: both are found outside its area. Thus attention is not characterised by the development of a new mental element, but by raising these universal elements to predominant clearness and intensity: and also, wherever the interest is sustained beyond the moment, by its tendency to produce a cumulative effect in its own process, issuing in a more complex and systematised awareness of the object than it possessed at starting.

But if attention has this tendency, it is undoubtedly *active*. I mean that in the process of our attending, any moment of that process is a condition of the changed degree in the moment that succeeds it. The cumulative effect of attention on its own process is two-fold. Itself a clear awareness of an object, it tends to produce a clearer awareness, and secondly a more complex awareness. For, in its inception, attention has a character of expectancy, and this, if it become definite, takes the verbal form of a question. As Mr Stout says, attention has a "prospective attitude," and is "essentially interrogative"[1]. With this attitude of expectancy is involved an element of doubt. We expect something; but we are not certain of its specific character. This doubt in the commencement is an obscure and indeterminate thought; but in the process of attention it tends to formulate clear and determinate alterna-

[1] *op. cit.*

tives, or a definite categorical judgment. Thus attention in its process tends to produce a clearer awareness of its object than it possessed at starting. For though it be always characterised by a superior clearness, yet in its inception it is infected by vague thoughts of possibilities which in the process of its development it tends to transform into clearness.

Its second cumulative effect on its own process has already been referred to. It produces new knowledge. It is "the growing part of the mind"[1]. And by successive acts of attention the new knowledge grows in amount, and enriches succeeding acts of attention. Hence in its development, the thought involved in attention tends to grow ever more complex, and in proportion as it is sustained by a single predominant interest to approach a complete and harmonious unity.

But is attention active outside the process of its own awareness, has it any effect upon its object? Before answering this question I must try to make clearer that most difficult and obscure distinction between our awareness and the object of which we are aware. I have based it on the incontrovertible fact that the one may be clear and grow clearer, while the other, as sensation or representation, is obscure and grows obscurer. The clearness of the one does not necessarily correspond with the clearness of the other; we are therefore concerned with two constituents. As the first constituent, our 'attending,' is analysable into the two elements of 'feeling' and 'thinking,' so each of these, like the whole constituent formed out of them, must be carefully discriminated from that complement of itself —found in the second constituent—with which we are most prone to confuse it. The first element, feeling, treated in abstraction from thought, refers exclusively to the felt or directly experienced, that is to sensation or to the mental imagery of the moment, or to the operations of the mind about this imagery, so far as these are directly felt or experienced. The second element, 'thinking,' treated in abstraction from feeling, refers exclusively to what is not felt or experienced, to a unity too great for immediate experience, or to certain objects, like your sensations and ideas, which from their very nature are incapable of being brought within the range of my immediate experience. Now as feeling or immediate experience is not the sensation felt or experienced,—the intensity of the one being strong in attention, while the intensity of the other may be proportionally weak—like, in nervous states, our intense feeling of the faintest sounds,—so our thought about this sensation, our reference beyond it, our identification of the class to

[1] *op. cit.*

which it belongs, is not to be confused with the psychical processes of fusion and association. No doubt a necessary condition of identifying the class-character of a sensation is a fusion between the new sensation and "the traces left in the mind" by the experiences of similar sensations. On the other hand identification and thought add something to this psychical process, and bring to bear upon it a new element. As Prof. James says, in speaking of "generic images" in which the similar characteristics of a variety of images are accentuated and their differences blurred,—as in a compound photograph,—these images are not to be confused with conception: "A blurred picture is as much a single mental fact as a sharp picture is; and *the use of either picture by the mind to symbolize a whole class of individuals is a new mental function*"[1]. This statement of Prof. James' is in complete accord with the conclusion here reached along different lines. In the identification which is a constituent of the process of attention the mind uses the "single mental fact," ordinarily fused with a reproduction below the threshold of consciousness, to refer to a class not given or presented; and this use of the mental fact, this reference beyond it, is certainly a new and additional mental constituent or function. Without this identification there would be merely a direct feeling of the result of this process of fusion, there would be no consciousness of its significance or meaning.

This distinction between attention and its object involves a duality of constituents, often referred to as the "duality of consciousness." Nothing less than a duality of constituents will explain this distinction. The theory of opposite and complementary aspects has here no application. Mind and brain are often spoken of as complementary aspects of the same thing. Like the opposite sides of a shield, we cannot see both together. But it is not, as it were, by turning sensations round that we come upon our awareness of them, nor by getting to the other side of this awareness that we reach sensations. Both are inseparably present as opposite but complementary constituents of every psychosis or state of consciousness. Thus only is it that we can explain how, at the same moment, the one can be clear, while the other remains obscure. If we apply the doctrine of aspects to this case, it obliterates the distinction. We should then have to say that when an obscure sensation, A, ceases, an opposite aspect of it, B, a clear awareness, takes its place. But B could have no direct awareness of A, because A must cease before B can take its place. The same result follows if we take

[1] *Principles of Psychology*, vol. ii. p. 49.

them in the opposite order. Thus if *A* is a clear awareness, *A* must first cease before *B*, an obscure sensation, can appear. Therefore *A* has no experience of *B*, clear or otherwise, and *B* never gets any recognition from *A*. As one disappears round the corner, the other arrives on the scene, only to find it deserted. Thus we can never have, what we must have in attention, the union in the same psychosis of a clear *A* with a possibly obscure *B*, but only in mutually exclusive and successive psychoses: in the same way as only in such successive states can we see the opposite sides of a shield.

We can now attempt an answer to the question whether attention is active in respect of its object, whether it produces any change in that, or whether its activity is confined to its own process of awareness. Now I here put aside any use of the word object in which it is taken to mean more than presented fact. The universe, the unity of any individual thing, the ideas of another mind, may be objects of my attention, but they are not presented fact for me. How far thought in my mind acts on other elements of the universe outside of it is a metaphysical question that we cannot consider here. But so far as the object attended to is part of the mental process of the moment, so far as it is sensation or representation, it is worth asking whether attention affects, not merely the subsequent process of itself, but also that other process of sensation and representation. I call these *two* processes, because of their profound difference. For while both share in the character of clearness or obscurity, one only has the character of 'awareness' or a reference beyond itself to that 'other,' that complement of itself, which has no share in this unique characteristic. But in a higher and more concrete sense these two processes are not two but one, inasmuch as they constitute that continuum that we call an individual consciousness.

Now attention if it be active in respect of this other process is certainly passive also and influenced by it. One case we referred to just now. For every identification that arises there must be a corresponding fusion between sensations or ideas and reproductions: and this fusion tends to produce in our awareness a change which enables it to interpret the meaning of the fusion. At the same time it seems as if attention on its side reacts on the psychical processes of association and fusion. We attend ordinarily because some result is produced by attention which in its absence would not be produced. New knowledge is obtained; but this new knowledge presupposes that the psychical processes are stimulated by attention to further activity. A fusion takes place which would not have taken place without attention; in its turn making possible that

change in the process of attention which we call new knowledge or discovery.

Thus if the argument of the first part of this paper be conclusive,—that attention has no universal tendency to render its object predominant in intensity and clearness,—we may now supplement that negative conclusion by a positive one, that attention tends universally to render the idea or sensation attended to more *active*, evoking such fusion and association as renders further understanding of the object possible.

One other question ought not to be overlooked, although it has only a verbal importance. Can I attend to anything that is not presented? I may of course supplement presentation by thoughts which transcend it; but can I attend to an object, no part of which is presented? For instance can I speak of attending to your thoughts, or to what is taking place at the antipodes? We recognise at once that such a use of the word strains its correct meaning. Yet no one would deny that we could think about such objects. But we can only attend to a representation of them, and not to the objects themselves. Thus I may attend to an account of what is taking place at the antipodes,—to a train of ideas which a description in language suggests; or I may attend to the ideas which I have constructed in my own mind to represent those in yours. On this view there will arise a difference between clear thought and attention, inasmuch as only that clear thought will be attention which centres on a directly presented content. Still if the needs of psychology require that the word 'attention' should be broadened to include all clear and concentrated thought about any object, then the habit of language must of course be sacrificed.

III.

In the first part of this paper we considered the theories of attention of the English Association School. Like the two Mills and Condillac they either identify attention with the clearest and most intense sensation at the time in consciousness, or they identify it with the process which accomplishes this result. They either deny, or else do not explicitly recognise, that other and more hidden constituent without the cooperation of which there is no such thing as attention. The class of theories which we are now about to consider have the merit of recognising this constituent; but at the same time they give such an interpretation of it as almost justifies their opponents in dispensing with it altogether. Thus Lotze after rightly distinguishing between "feeling and the perception of what is

felt," between the variety and change of ideas and "the idea of this variety and this change"[1], proceeds to explain this constituent in the traditional German way as a mysterious "activity," although he admits "we find it quite impossible to define what we mean by it, when we oppose it to a mere occurrence, in any way approaching to a mechanical construction"[2]. He holds that attention is "an activity exercised by the soul and having the ideas for its objects, and not...a property of which the ideas are the subjects"[3]. And in Prof. Wundt's doctrine of apperception, this conception of activity is again prominent. Dr Ward's theory is similar: Psychology, he says, "will have to recognise, and always does recognise, that unanalysable element I mean by attention or psychical activity"[4]: and he likewise distinguishes this activity or attention from its objects, "the presentations attended to"[5]. Lastly he admits that his theory posits a faculty. There is "one subjective faculty or function of Action-under-Feeling"[6].

Now in an empirical science like Psychology such an activity outside the stream of events, though acting continually on them, is nothing better in Mr Bradley's picturesque language than "a rag of metaphysics." Few disinterested persons can doubt that such a metaphysical doctrine must be, and is rapidly being, exterminated from psychology.

What are the chief heads of its offence? In the first place attention is conceived as an Activity. But what right has it to be preeminently entitled active? If all other mental elements are active, and attract and repel one another, no distinction is gained for this by calling it active. But if they are not, if it alone is active, they merely receptive or passive, we have exemplified that tendency of which Mr Bradley justly complains "to break up the life of the soul, to divide it into active and passive factors, or to suppose a passive beginning with a supervening activity"[7] by some identified with attention.

This is the first count against the doctrine, the second is that it places this activity outside the stream of events, and therefore properly outside the bounds of psychology.

The third is that there is nothing concrete about it. It has not the touch of reality. It is nothing better than an abstraction hypostasised.

In the fourth place, according to Dr Ward and those who follow Kant in this respect, this activity cannot be presented: we can only conceive it or think about it. In that case how

[1] *Metaphysics*, B. III. Ch. III. § 267.
[2] *ibid.* § 270.
[3] *ibid.* § 273.
[4] *Mind*, xii. pp. 570, 571.
[5] *Mind, ibid.*
[6] *ibid.* p. 61.
[7] *ibid.* xi. p. 305.

can we conceive it with no basis of experience to account for this conception?

The fifth and last count is that it is a faculty. That is, something outside the facts, gifted with a mysterious power of which no explanation can be given of interfering with them in some specific manner. According to Dr Ward the subject has the faculty in attention of altering the intensity of presentations; in his own words of "variously distributing that attention upon which the intensity of a presentation in part depends"[1]. To sum up this count I will again quote from Mr Bradley: "In its worst form," he says, "the faculty is a something outside that interferes by a miracle with the course of phenomena"; "in its more innocent form the faculty acts by a law, but the objection to it is that in this case it is idle"[2].

Thus the objections against this conception are so serious, from a psychological standpoint, that they justify us in rejecting it, unless there be no other way of explaining the facts open to less serious criticism. I shall try to show that there is such another way, and that, in addition to the objections already noticed against this doctrine, there is the further objection that it is in conflict with the facts. Taking this alternative way of conceiving attention, in the first place, as a mere hypothesis, it will assume as against the assumptions of the opposite conception, that attention is as directly felt or experienced as sensation; that it is presented and not merely thought about or conceived; that so far from being something outside the stream of events, it is itself an event or succession of events; that so far from being preeminently active, if it be active, it is only so in the sense in which all other mental elements, including sensation, are active, which in submitting to change themselves modify the change they submit to, and in actively influencing the course of mental events are as certainly modified and conditioned by preceding and accompanying events.

Now the alternative conception is, in the first place, in flagrant conflict with mental facts in refusing to allow that attention is an event. If attention is only the clearer and intenser awareness due to mental concentration on a single object; if its content changes with the thoughts which constitute it; if its degree of clearness and intensity fluctuates from moment to moment; if its process has a definite duration; if, at last, it is determined through change of interest to refer itself to another object, or relapses through fatigue into that state of inattention from which it has arisen, then assuredly our attention is an event, or continuous series of events, at any time in which it is real and active.

[1] *Mind*, viii. p. 485. [2] *ibid.* xii. p. 366.

But if attention is certainly an event whenever it is actual, —whenever we do not make of it an abstraction, as when we speak of 'this being an example *of* attention,' instead of 'this *being* my attention at such a moment,'—then it is directly felt or experienced, though it may not always be identified or apperceived. But whenever I am attending, and attending for a sufficient time and with sufficient intensity, then I am aware that I am attending, in the same way as when I desire or deliberate or resolve, I am aware of these functions unless they be faint or momentary. Now I do not suppose the fact will be denied that often I have this self-awareness, but differences of opinion will arise over the interpretation of this fact. The question is whether attention is presented, or whether my undoubted awareness of it is to be explained as merely conceptual. Let us take a case where we should all hold that our thought was conceptual, and could never be transformed into a perception. The particular ideas or sensations of another mind are altogether outside the sphere of my consciousness. I can conceive them, but never intuit or perceive them in the strict sense of those terms. But I can conceive them readily, because in my own experience I have materials on which to construct this conception. I place before myself ideas of my own which I regard as symbols or representatives of what I suppose to be the ideas of another:—and we all know how limitations of experience and narrowness of character unfit us for forming true ideas of the experiences or character of another person. But on the supposition that attention were never presented, we should not only form an inadequate and untrue conception of its specific character from limitation of experience, but be unable to form any such conception from absence of all experience. The conception that we could form of it would be one from which its unique constituent of awareness would be ever absent. Of this constituent we could form no truer representation than a man blind from birth formed of the colour scarlet which he likened to the sound of a trumpet. But since we have undoubtedly a conception of this awareness, it follows that we must have directly experienced it.

This deduction is borne out by experience. When I recognise that I am attending, I am not forming a conception of something absent and for ever absent from my experience, but I identify something present, and now occurring within me, as attention; in the same way as the sensation to which I attend is both presented and also identified or apperceived. Both stand on the same plane: both are directly felt or presented, both are also apperceived. But when the process of attending is too faint or momentary, the event does not stand out

distinctly enough, or long enough, to be recognised. It becomes something from which all individuality and specific character is effaced owing to this absence of identification or recognition; and if I may apply Mr Bradley's forcible language to a theory of attention with which he might not agree, it sinks into the "indefinite mass of the felt"[1] which underlies and bounds all distinct consciousness.

When I say, 'I am clearly aware of an obscure sensation *A*,' in this judgment, there are obviously two constituents of which I predicate or affirm specific character: the constituent *A* which I affirm to be obscure sensation, and another constituent to which I affix the opposite character 'clear,' as well as the unique character of awareness. Both constituents are now felt or experienced. For the sensation is a present sensation; and that my attention to it is also present is sufficiently indicated by the use of the present tense of the verb. Therefore I touch reality at two points, and feel two distinguishable constituents of it, and in a moment and spontaneously I have attached to these constituents their appropriate and opposite characters. This experience is sufficient to prove that the sensation *A* is not alone presented, for with it and inseparable from it, is also presented that other complementary constituent which we ought not to isolate and name 'attention,' but only '*attending to*' or '*being clearly aware of*.'

In conclusion I must notice an argument that has much to do with the belief that attention is incapable of presentation. The permanent and universal, it is said, are not events and cannot be presented; but attention is such a permanent and universal element; therefore not presented. "It is obviously impossible," says Dr Ward, "that what is a constituent in every psychical event can be explicable in terms of psychical events"[2]. Now I am not going to contest this principle; we may assume it to be true, and yet maintain that the conclusion inferred from it is fallacious. In the first place special and selective attention is not permanent; but, as Prof. Ribot argues, an occasional phenomenon[3]. It is absent in states of extreme fatigue, illness, in moods of despondency and ennui, and on the approach of sleep. At such times our awareness of objects is diffused. There is no concentrated point of clear awareness: there is no selective attention. But as it is a contested question whether all degree of selective attention is effaced under these conditions, I shall not assume the point. It

[1] *Mind, N. S.* vol. ii. p. 215.
[2] *ibid.* xii. p. 66.
[3] *Psychologie de l'Attention*, p. 15.

is sufficient to take what is admitted on all hands, that at least the degree of attention is diminished. The degree of attention is then susceptible of change; it passes from the most intense and clear to the faintest degree compatible with selective attention. The degree of attention is therefore not permanent; and as an actual constituent of every psychosis, attention possesses always a precise degree. Taking then a cross section of my permanent attention, confining myself to this my attending of the moment, I find that it is an event, inasmuch as it has come with a changed and precise degree of intensity. In the succeeding moment, this has also changed, and given place to a different degree. Now as any one of such changes always leads on to another without break, I conclude that the event of my attending at any moment, is only the real and present portion of a continuous process of attention which existed before it and will continue afterwards. And as when I abstract from the precise degree of attention at any moment, and its precise degrees in preceding and succeeding moments, I recognise that there is some degree of attention in all, I conclude that attention at any moment has a universal character which is unchanging, as well as a particular degree of reality in constant change. I therefore predicate of attention both continuity and an abstract universal character.

Now the fallacy of the argument that because attention is permanent and universal, it is therefore incapable of presentation, consists in taking attention in an abstract sense, and putting its quality or character in the place of the real attention from which it has been abstracted. Instead of this real attention we have its abstract character hypostasised. Then we are reminded that this mere abstraction cannot be presented.

But this fallacy is capable of a *reductio ad absurdum*. I said, some time back, that attention stands on the same plane as sensation, and we get a striking illustration of this truth in the fate that overtakes sensation on the supposition that attention is incapable of presentation. For if attention is, then surely is sensation. Both are permanent constituents "in every psychical event." Both have an abstract universal character of their own. Both are continuous. Sensation then, like attention, as a permanent constituent, as universal, as continuous, is incapable of presentation.

Are we not, then, forced to conclude on all hands that attention is an event or continuity of events, that it is presented, that it is directly felt or experienced, though often not recognised? And this conclusion is in no way inconsistent with the principle, that, as an abstraction, as a permanent,

universal character, attention is incapable of presentation and can only be made an object of thought.

Three ideas in this paper must be raised above all side issues discussed in it. The first is, that the predominant clearness in which attention consists cannot be found universally in the clearness of the ideas or sensations attended to, or in the process which effects this clearness. The second is, that it can only be found in our awareness of them, as an additional constituent, not identical with sensations, nor capable of being resolved into or abstracted from them. The third is, that this constituent is at any moment at which it is real and actual as much directly felt and experienced as sensation.

III.—PSYCHOLOGY, EPISTEMOLOGY, ONTOLOGY, COMPARED AND DISTINGUISHED.

By S. H. Mellone.

Frequently it is pointed out that the habit of isolating and abstracting one inquiry from others within the "magic sphere" of philosophy is a fruitful source of error and confusion. Philosophy, like Wordsworth's Cloud, *moves all together*; we cannot isolate and come to a final conclusion upon one problem without thereby prejudicing our conclusions upon all the others. Without denying this, it is just as important to remember that philosophy, *unlike* the cloud, must be a whole of parts that can be intelligibly distinguished—not a region formless within and without. That is no whole which does not consist of parts which are clearly distinguishable just because they are related or connected together; the "parts" of philosophy are not unrelated inquiries but differences of method within the One inquiry. Even an Absolute System must recognise this, otherwise it could not with any meaning state its problem and method of exposition—though it might so state its arbitrarily assumed first principle.

The significance of these general observations will appear more clearly in what follows.

§ 1. It has been well said that Psychology may in brief be defined as the Description and Explanation of Conscious states *as such*. This statement indicates both its stand-point, or the subject-matter to which it limits itself, and its method.

The subject-matter of Psychology is conscious states *as such*; in other words, it is necessary—but also sufficient—for any fact to have psychological import, that it enter into or form part of some one's experience,—some individual's conscious life. In technical language: Psychology is interested in any fact only in so far as it is a Presentation to a conscious Subject; and indeed no other consistent account can be given of the

facts with which the science deals. In so far as they are equally Presentations to a Subject, they are of equal importance to the Psychologist, as long as he remains one, whatever be their content or their meaning[1]. We must carefully observe that by the term Subject, at the present stage, is implied nothing more than was implied by the terms "some one," "some individual": *i.e.* that conscious states only exist as gathered together in the unity and continuity of a single experience. This is fully recognised in such representative modern works as those of Ward, Höffding, Baldwin, and Sully. Here we have the most general definition of a psychical fact; and the conception of the Subject is that of a unity of the many distinguishable facts or states. This is the *least* that the conception can mean. There is no ground, so far, for assuming that the function of the Subject is exhausted in such unification, or that we cannot *fill in* the conception of the Subject and make it more determinate.

With regard to the Method of Psychology, I would here simply distinguish: (*a*) the analytic or descriptive; (*b*) the synthetic; (*c*) the purely historical or genetic.

(*a*) The analytic method relies on introspection and on every possible means of helping and verifying introspection; its aim is to describe and classify the actual facts of the adult human mind. In no sense whatever is such analysis a division into parts capable of existing separately; the psychologist analyses a mental phenomenon "when he is able discriminatively to attend to its several features or elements."

(*b*) The synthetic method aims at showing how the actual facts of mind may be built up out of elements which are assumed to be capable of having existed previously in a state of mutual independence (more or less). This method always tends to be *atomistic*, and its assumptions are analogous to those of Chemistry. In the view of Spinoza and Hobbes, the development of mind was a process of mechanical aggregation, after the analogy of Physics; in the view of some English Psychologists, it is one of combination, after the analogy of Chemistry. The tendency at the present time appears to be to pass entirely beyond the atomistic point of view, and to represent the process as one of organic development, after the manner of Biology. But the principle of development in Biology requires a philosophic interpretation,—an interpretation which the specialists seem incapable of giving. In any case, those who persuade themselves that "science has shown,"

[1] I use these ambiguous terms in the sense indicated by Mr Bradley, *Logic*, p. 3.

or has any prospect of showing, life to be a form of "energy," must regard biological growth as a process of mechanical aggregation. This gives rise to an inevitable bias towards viewing mental growth in the same way.

(*c*) The impartially historical method avoids these extra-psychological implications. It aims simply at showing the characteristics of the facts of mind, in their chronological order of succession, as gradually more complex forms appear. Its question is, what is the order (in time) in which the facts appear in the normal mind? And this mere time-order is the only principle of connexion that it makes use of. In most of the existing Psychologies, the idea of development appears to oscillate between the synthetic (*b*) and the historical (*c*); Höffding's account of the development of Feeling is, I think, a case in point. An impartially historical method would aim only at describing the characteristics of each higher form of Feeling as it emerges, and observing the order in which these forms emerge.

The analytic or descriptive side of Psychology—except in the case of a single great work—has been much neglected, in comparison with the historical. This is especially seen in the Psychology of Judgment and Reasoning. In some works, these —the very elements of Cognition which are the most prominent in our actual conscious experience—are almost ignored. We look in vain in any of our Psychologies for a complete description and classification of these. As a matter of fact, it has come about that they are most strangely and arbitrarily separated from Psychology and treated under the head of "Logic" (along with various epistemological matters). I maintain that a considerable part of the discussion in such Logics as those of Lotze, Ueberweg, Bradley, Bosanquet, is purely psychological, and ought to occupy a very prominent place in any "Psychology of Cognition" that deserves the name.

To discuss the causes which have brought about the curious result that I speak of, would be to wander too far from the present subject.

§ 2. I have introduced Mr Bradley's distinction of content and meaning in order to draw attention to the characteristic of psychological facts by which they become the subject-matter of Epistemology. The *content* of our presentations is simply what they are,—that which is the object of attention when one is distinguished from another; to speak of their *meaning* implies that they contain a reference beyond their factual sphere as presentations. This reference,—which, be it remembered, is itself a psychological fact, and moreover for Psychology is

simply a change or new relation within the field of presentations,—is of two kinds.

(*a*) *The reference to Self.* Here the position of Descartes seems unassailable.

The central fact of my existence is, "I am thinking," which simply means "I am conscious of...." This is the actual concrete fact. It is impossible not to believe that the states, affections or modes of consciousness are *my* states, that they belong to me as Subject. Descartes preferred to say, "In knowing them as mine, I know that I exist." But it is less ambiguous to express the matter thus: the only account or explanation, presenting itself as immediately intelligible, that I can give of *my* existence is, "I am conscious of Presentations"; the only corresponding explanation of *their* reality is, "They are objects of my consciousness," *i.e.* they are mine. In being conscious of them, I immediately experience or go through or *live* a life of Feeling and Activity in relation to them. Hence, —although no state of Activity or Feeling can ever be an element of a sensation or mental image,—I know what I *mean* by both terms; as Berkeley pointed out.

What has been said does not imply that we are self-conscious at every moment of our lives. As Kant has it, "Das 'Ich denke' (I am conscious) muss alle meine Vorstellungen begleiten *können*." However absorbed we may be in objective events or in trains of ideas, the reference to self may emerge at any moment. Further, it is not implied that we have on the one side "something called Thought" (*i.e.* the whole concrete conscious life), and on the other side "something called I," and attempt to "explain" the former by reference to the latter. It is implied that Self is realised or lived *in* the actual threefold process of conscious life. There is no "substance" of the soul to be known apart from the actual mental life; in so far as you know the fundamental constitutive processes of that life, as shown by Psychology, you know the substance of the soul. In this as in every case the "phenomenon" is simply as much of the "noumenon" as is known[1]. On the other hand, the concrete mental life does not mean the fleeting presentations and transient ebullitions of feeling. As Höffding well shows, the deeper currents are the easiest to overlook, but are none the less *facts.*

(*b*) *The reference to reality other than Self.* Our presentational states, when appearing in the medium of those relations implied in judgment, continually refer themselves to a reality

[1] As regards the relation of "phenomena" and "noumena," I may be permitted to refer to Prof. A. Seth's *Scottish Philosophy*, 175—7.

which we know by their means. In ordinary life and thought, it is just in this aspect that we are specially interested in them; "we treat them consistently as significant, as ideas *of something*, as representative or symbolic of a world of facts." The natural and primary meaning of Reality or Fact here is,—that which does not depend upon my presentations, and hence not upon myself, for its existence; but is in some sense independent and permanent. This is *the least* that we mean by speaking of "trans-subjective" or "extra-conscious" realities. The reference to Self and to reality other than Self are the results of two *parallel* processes of growth in the individual mind; from the beginning they proceed pari passu. Indeed, it might be said that the external factor is in a sense prior, rather than the internal; since the representation of Self is at first indistinguishable from that of the body. In any case we cannot treat the trans-subjective reference of our ideas as less inevitable or less spontaneous than the subjective reference. Nevertheless, this was what Descartes tried to do; and against this, it would seem, Kant's very ambiguous argument in the famous "Refutation of Idealism" is directed.

Thus Psychology (in treating of Cognition) and Epistemology deal with the very same facts, but regard them from different points of view. Comparing the two, "we may say that the latter is essentially [descriptive and] genetic in its method; the former is essentially devoid of everything historical," and treats of human knowledge (*i.e.* our cognitive states) as such. In actual experience we never adopt towards our conscious states that purely descriptive and historical attitude to which the psychologist limits himself. We are interested in our cognitive states *as cognitive*, while the psychologist is interested in them *as conscious*—as entering into the conscious lives of ourselves quâ individuals. This attitude which we adopt in ordinary life is also the attitude of the epistemologist.

§ 3. We have seen that Psychology begins with the individual consciousness, and that it also ends with it. Epistemology starts with the individual consciousness, in its turn; but it inquires concerning the apparent reference, within that consciousness, of its presentations to a world which is, relatively to them, "real." The fact of this apparent reference, and the manner of its occurrence in judgment, Psychology must accurately set forth; but Psychology rests in the appearance. Epistemology does not rest in the appearance; its business is to bring to light and continually emphasise this "trans-subjective" reference in the individual consciousness, and vindicate it as *the most fundamental constituent* of knowledge.

More precisely, the problem of Epistemology, with regard to this fact of knowledge, is to show,—

(*a*) that it cannot be *ignored*, as is done by any Absolute metaphysical system (*e.g.* by such systems as those of Spinoza and Hegel, and their modern descendants);

(*b*) that it cannot be doubted, perverted, or denied, as is done by the various forms of "Scepticism," "Relativism," "Subjective Idealism," and the like.

In the course of this inquiry it would be shown that the fact in question is no mere Intuition,—*i.e.* not merely a "clear and distinct" *belief* arising inevitably in consciousness; this much Hume would willingly have allowed. It would be shown to be a belief which is *rationally* inevitable, since doubt and denial of it land us in absurdity[1].

We have now to raise the following questions: In what sense does the psychologist deal with *reality*? In what sense does the epistemologist *start from* reality? In what sense does he endeavour to *pass to* reality? The answers that will be suggested may be thus summed up. (*a*) Epistemology starts with Reality in the sense of psychological fact; *i.e.* it starts with a partial and incomplete conception of Reality. (*b*) It does not endeavour to *pass to* Reality; it endeavours to vindicate a belief which is a psychological fact. (*c*) This belief *refers to* Reality—which can here be defined only in a negative way. From the very nature of the case we cannot attempt to make this conception of Reality positive, or to complete the (psychological) conception with which we started, until the epistemological problem has been dealt with. (*d*) These attempts constitute Metaphysics or—a much more appropriate term—Ontology (the science of Reality).

In the first place, then, what is Reality for the psychologist? This question has already been answered by implication: in § 1 we saw the psychological subject (*i.e.* the Reality with which Psychology deals) must *at least* signify a unity of the many distinguishable states; in § 2 (*a*), that this Reality has a double aspect—the Presentation or *Vorstellung*, and the states of Activity and Feeling that cannot enter into any Vorstellung as constituent elements of it. I return to the question in order to bring out more clearly what was implied. This matter is of especial importance, because we are here explicitly formulating

[1] For an indication of the lines on which such an inquiry would proceed, I may refer to four articles by Prof. A. Seth (in vols. i. and ii. of the *Philosophical Review*); especially the *second* and *fourth* of these articles.

the conception of Individuality, in that sense in which Individuality is immediately *given*. It is an explicit statement of the content of that portion of Reality upon which we have a direct and unmediated hold, and which "burns in the one focus" of the individual life.

The ultimate fact or ultimate reality for Psychology is, "Subject perceiving (or conscious of) presentations." By the term "Subject conscious of," we understand the subjectively-subjective side of our mental life; a perfect unity, in which—abstracted from the presentations which it unifies—we can distinguish, (*a*) an intensive state conditioned by the presentations, and (*b*) an intensive state conditioning the presentations. These are respectively Feeling and Activity (Attention); and neither of these notions can be further analysed or defined. The facts they stand for are matters of an experience closer than knowledge. The psychologist must decline to give any account of the reality of the Subject except by the characteristics implied in "consciousness of." Psychology as such is unable to find any indication of whether this is a *complete* (*i.e.* an ontological) determination of the existence of the Subject or not; but it must be at least a partially true determination, since if it is true in the psychological reference, it cannot be false in any other reference. The psychologist must further decline to give any account of the reality of the presentations other than that they *are* presentations to a Subject and objects of its apperceptive activity; though of course this is not a completely true account of their mode of existence. We have here made only a *negative* admission; psychology as such cannot completely (*i.e.* ontologically) explain the reality of the presentations by their connexion with the Subject. It is the first business of Epistemology to show that this Berkeleian view is impossible. On the other hand, as before, this must be a partially true determination; the fact that they are presented to an individual Subject must in part make the presentations what they are. Thus Psychology depends on an ontological hypothesis, but on one which is *limited*; it is this limitation which specialises Psychology,—in other words, distinguishes it from Ontology.

Psychology compromises with Ontology by declining to transcend this fact of presentation to a Subject,—declining to transcend it in either direction (subjective or objective).

§ 4. This appears to be a satisfactory answer to the first of the three questions indicated above. The second and third may now be answered without much difficulty.

It has already been shown how within the field of presentations, two new relations arise on occasion of the more or less

definite appearance of the presentation of Self[1]: namely, the reference to Self and the reference to reality other than Self. Both these relations are psychological facts; they are facts, realities, exactly in the sense in which Psychology so describes them.

The reference to Self gives rise to a problem for Epistemology, but in a special way. It must first be observed that in each of those "duration-blocks" which we speak of as the Present, or Now, the life of Self is lived or directly experienced: this we observed above (see § 2 (*a*), ad finem). The ordinary idea that we are "immediately conscious of" Feeling and Will, appears to be a product of two facts: (*a*) the feeling and activity is lived,—its relation to the presentations is a matter of experience; (*b*) the feeling and activity is *known about*: this knowledge belongs entirely to the presentational side, and—as Dr Ward has it—"however far extended, it advances only by discernment of new relations." The two facts, inseparable in the real concrete mental state, together constitute what is called "experience of" or "consciousness of" feeling. To speak of the Subject as that which *has* the feeling, appears to be a somewhat misleading way of indicating that feeling is an intensive state: the more or less transient feelings are, as it were, the manifestations of a subjective store. There is no "stream" of feelings in any ordinary sense of the word; every feeling is a unity,—transient and contracted, or abiding and deep-seated. Every feeling lends a unity to the presentations which condition it, and gives them a meaning for the individual into whose experience they enter.

In any temporal Present, then, the existence of the Self is not a matter of intellectual construction but of immanent experience,—"self-experience," we might say, remarking that self-experience is a more fundamental fact in our mental life than self-consciousness. But when we take into account the *successive* duration-blocks, it becomes apparent that the existence of the Self through these is a matter of intellectual construction. In other words, Epistemology does not, like the historical method in Psychology, rest content with mere succession, but endeavours to show (after the manner of the Kantian Deduction of the Unity of Apperception) how such experience of succession is possible. It is possible if there is in consciousness a principle which either is permanent and "identical with itself through Time" (whatever that may mean), or has a mode of existence that in some way *transcends* time.

[1] That is, the so-called "empirical self"; a complex presentation to consciousness, "continuously, but at no one moment completely, presented" (J. Ward).

But it is in the reference which we have called "trans-subjective" that the central difficulty of Epistemology lies. It is only a partially true account of the reality of presentations to say that their *esse* is *percipi*,—to be objects of an apperceptive activity and feeling; and we cannot attempt to complete this conception of their reality—that is, attempt to give an ontological account of their existence,—until we have vindicated their trans-subjective reference, in the manner shown above (see § 2).

It must be carefully observed that we do not "start with a self-contained Subject," or assume that "at first we know nothing else" than "subjective states[1]"; indeed, to maintain this would be absurd, since the "subjective states" *are* themselves the knowledge. Consequently we do not seek to "leap from them (subjective states) into something absolutely different"; we start with an individual who, ideally, *has* "transcended his own existence." There never was a time in the life of any individual when he recognised his cognitive states as being his own and yet did not refer them to a reality other than himself. It is in fact psychologically *absurd* to say that a man "knows only his own states"; it is a confusion that arises simply through the vague and unscientific character of the terminology employed. Descartes, and many others after him, regarded Thought as the essential function or activity of mind. In this case it is possible, and apparently intelligible, to ask whether the objects of this thought (in knowledge) are "states of the mind itself" or "external objects." Descartes assumes the former; hence immediately arises the question, what warrant, then, have we for belief in the conscious minds of our fellow-men, or in any other trans-subjective reality? From the nature of the case, no warrant can be found. Now the proposition that "all the objects of our knowledge are ideas in our own minds" is utterly destitute of meaning, and plausible only through careless use of language; but, apart from this, if we start with mental modes unreferred save to the Self only, we cannot establish the reasonableness of their reference *at a later stage* to reality other than Self. This is the whole error in the Cartesian point of view; we correct it by starting with "mental modes" or psychological presentations which *have been* and *are* referred beyond their sphere as presentations.

Note. It can hardly be necessary, at the present time, to insist that all knowledge whatsoever,—whether knowledge of Self, of "psychical occurrences," or of anything within or

[1] The quotations are from the third article by Prof. Jones in the preceding volume of MIND.

beyond these,—together with the most essential processes of Intellect, and the characterisation of their results as true, false, doubtful,—consists solely of attention to new complexes of relations within the presentational field. This is recognised by all psychologists who believe that their own science is possible. But I should like to press the following question. If, for the purposes of Logic or Metaphysics, knowledge or reason is assumed to be something quite different from what Psychology takes it to be, how are we to know that we are not dealing with an abstraction in our heads, or even with the merest fiction? "Thought" or "Reason," conceived as a kind of activity *per se*, is an idol of the market-place; philosophers adopt it and make it into an *eidolon theatri*, and proceed to argue as if reason or knowledge were comparable to the tentacle of an organism, that goes out and grasps things; or to the orifice of an organism in which things are absorbed.

§ 5. The trans-subjective reference has been spoken of as giving rise to the *central* problem in Epistemology. This is because we thus only open the way into a systematic criticism of the constituent elements of knowledge.

The physical sciences assume the validity of that reference, and start with a *Wahrnehmung*—an observation assumed as objectively valid. Like common-sense, they deal with a world of facts; and in effect they seek, by hypothesis concerning the nature of that world, to reduce the indefiniteness of the conception—"that which does not depend for its existence upon any presentations to any individual consciousness." I say "in effect," because no science ever presented its problem to itself in this way; nevertheless the work of the sciences may be very conveniently regarded in such a light. In the next place, we have to observe that the special sciences, in dealing with extra-conscious existence as thus understood, make implicit assumptions concerning its nature; or, as we may otherwise put it, each of them in its own sphere assigns a special meaning to reality, and limits itself to dealing with reality in that special sense.

(*a*) Physics and Dynamics limit themselves to the consideration of events that can be reduced to mechanical action,—*vis a tergo impressa*. Events are explained, from the mechanical point of view, if they can be exhibited as cases of the "transformation" of what is called Energy. Energy is universally defined as the Power (Capacity, or some synonymous term) of "doing work" (overcoming resistance through space). It is a protean something, never observable by the senses, and always passing from one form to another, from one portion of matter to another. Since Energy contains no principle of difference

within it, Matter is assumed as a second entity, supplying the diverse and ever-changing forms in which Energy manifests itself in space and time. These material forms are ultimately reducible to aggregates of atomic centres, conceived as subjects of motion, and as capable of *intrinsic* movement (vibration, etc.). Energy is always spoken of as if it were *measurable*; but what is measured is really the sensible motion (in space and time) of the material forms: and supersensible motions are of course ideally measurable (actually measurable, if our senses and instruments were fine enough). The "unit of mass" and "unit of work" are in the last resort movements through a unit of length. The nature of motion is defined in Newton's first "law," which states that any material element moves, or varies its motion, only in so far as it is determined to do so by adjacent moving elements; and the principle of Conservation may thus be stated: "the more we are able to *isolate* an aggregate of material elements, and regard it as a self-contained whole, the more completely will the motion of any element in it determine and be determined by the motions of all the other elements." For Physics, what is real is what can be brought under this law.

Physical science knows of no locked or closed material "system" (*i.e.* aggregate); hence, even if Energy were measurable[1], it is quite unjustifiable to speak of the quantity of Energy in the material universe *as a whole.* There may be forms of reality which cannot be brought under the law of Conservation (or mechanical reciprocity); for which mechanical explanation is inadequate, and with which Physics cannot deal.

(*b*) Chemistry introduces a new principle: namely, what is called Affinity, by which certain elements combine while others refuse to do so. These combinations are attended by events that are capable of being expressed in mechanical terms (liberation of heat, etc.); nevertheless—though the nature of chemical affinity is very imperfectly understood—there seems no prospect of a purely mechanical explanation. We may contrast the recognised possibility of a mechanical explanation of gravitation and electro-magnetic attraction. It is of the essence of mechanical determination to be an external determination of one atom or material element by others; while Chemical Affinity seems to be a species of immanent attraction of one atom for another. It is probable that the difference will be generally recognised when physicists recognise that the customary phraseology about the transformation, transference,

[1] Though Energy has to be regarded as a principle of *identity*, assumed to be immanent in a multiplicity of atomic centres.

and quantitative measurement of Energy as such, is meaningless.

(*c*) Biology and Physiology assume a new principle,—organic activity. Living matter only exists in individual centres or organisms. The biological definition of an organism is: a being such that all its activities are *co-ordinated* in the interest of itself *as a whole*. We may regard the particular activities, when isolated, as physico-chemical processes; but the fact of their co-ordination cannot be so regarded. The organism must at least be capable of adapting itself to changes in its environment—if not capable of initiating activities of its own, independently of such changes. There is no need to enlarge further on this; Prof. Sanderson's address to the British Association a year ago, and the subsequent discussion in the biological Section, may be taken as rather more than symptomatic[1].

(*d*) Psychology assumes yet another principle: conscious action, or "self-experience." The nature of the psychological hypothesis has been already discussed.

Each of these assumptions is a limited ontological hypothesis; that is, an attempt to assign a meaning to reality, or to *fill it in*, to a certain limited extent. We need hardly have used the term hypothesis in connexion with Psychology; for here the reality which is assumed is also immediately experienced. This is not the case in the three sciences dealing with extra-conscious reality; hence Psychology may be distinguished as a subjective science, the others as objective sciences. For this reason the former is much more an integral part of Philosophy than the latter; "with Mind for its subject-matter, its scope cannot be less wide than the scope of Philosophy" (G. Croom Robertson). This brings us to notice that the hypotheses of the sciences may be arranged in an order of decreasing generality and increasing complexity. Chemical processes involve mechanical processes, but cannot be reduced to the latter; biological processes (*i.e.* the lives of organisms) involve chemical and mechanical processes, but cannot be reduced to either of the latter. What then is to be said of the relation of Psychology and Biology (or Physiology)? I confess to sympathising with those psychologists who defend what is called the "causal interaction" of mind and brain, in the sense that the energy of consciousness in some way *conditions* the states of the brain, while the latter in some way *condition* conscious states. It is obvious from what has been said that no physical or mechanical law, such as that of

[1] See *Nature*, vol. xlviii. pp. 464, 574, 613.

Conservation, can be brought as evidence in this matter[1]; it is on "phenomenological" grounds that we accept the view of psycho-physical interaction, and reject the monistic hypothesis (Höffding, ii.). We may express the relation as before: psychological processes "involve" biological, but cannot be reduced to the latter. At the same time it may be allowed that this admission is of practical importance only for the psychology of feeling and will[2], when the questions herein involved *are pushed so far as to become ontological.*

The function of Epistemology is explicitly to formulate and compare the ontological assumptions on which the several sciences rest. This might be called a "criticism of categories." The investigation is "critical," because it is not content with mere phraseology, or mere picture-thinking, but with clear and distinct meanings. Under these circumstances it appears that reality cannot be conceived except after the analogy of our own life of consciousness or self-experience,—or after the analogy of some aspect of that life, such as unity or identity. It is a question whether reality conceived in any other way does not become an existence without content: *i.e.* does not approximate to that conception of empty or abstract Being, which *as a conception* is indistinguishable from nothing. From this point of view, if we regard reality as an all-inclusive whole which is implicitly "filled in"—of which the full content is implicitly known—from the outset (by reference to the conscious life of man), then we may say that the special sciences make abstractions of particular portions of it. For this way of envisaging the matter, a proper use of the Hegelian Logic is most helpful.

Epistemology has further to investigate and state clearly the methodological assumptions made by the special sciences; such are—the Uniformity of Nature ("The same sum of conditions, *if* it occurs more than once, will produce the same effect") and Universal Causation ("Every event must be *somehow* completely conditioned by other events"). In doing so, we are led to inquire into the nature of rational evidence and proof. These questions have their centre in the idea of an

[1] The real question is,—can we claim for Extension an existence of co-equal validity with that of Consciousness? Descartes, Spinoza, and the modern "monists" *assume* that we can.

[2] In other words, it is meaningless to speak of sensations or any other elements of *cognition* as being in any sense produced by a force acting *ab extra* on the mind.

The whole question of the interaction of mind and body is quite irrelevant for the psychology of cognition, in so far as this can be abstracted from feeling and will.

hypothesis as *explaining* facts (*Wahrnehmungen*) and of the method by which we pass from the facts to the hypothesis. These are the problems with which what has been called "Inductive Logic" has professed to deal; and we may safely say that its achievements have been in inverse proportion to the magnitude of its pretensions.

§ 6. To co-ordinate the results of the special sciences with one another: this is the problem of Ontology. Its ultimate ideal is to explain all things as manifestations or modes of working of a single all-embracing Power or Principle—the Absolute Reality. In other words, Ontology is "completely unified knowledge"; the sciences, physical and psychical, are "partially unified knowledge"; common-sense is knowledge in a chaotic and disorganised state. The difficulty with regard to common-sense does not relate so much to the truth or falsehood of its judgments as to the want of clearness and distinctness in its conceptions. We advance from this state of confusion by progressively clearing, defining, and determining our conceptions[1]. When this is done, if ever it will be done by the mind of man, the conception of reality will be fully "filled in"; reality will be completely defined. As Kant points out in his *Methodenlehre*—complete definitions are the last result of Philosophy.

In the course of such an inquiry, the process of evolution, growth or development would find its approximately complete explanation. The two radically divergent interpretations of this time-process depend on the significance that is attached to our feelings for Value and to the Judgments in which they find expression. We must be guided in our unification of knowledge by the significance that is to be attached to those feelings; "guided," because on this will depend our inclination towards Idealism or Materialism,—*i.e.* whether we regard the lower mechanical categories, or the higher, as most truly expressing the nature of reality in its completeness. These matters belong to Ethics (viewed as the transition from Psychology to Ontology). To discuss them would carry us far beyond the object of the present paper—which was to illustrate the view that theoretical Philosophy, though far from being a group of isolated inquiries, includes within it real and necessary differences of method. On the whole, taking Epistemology and Ontology together, we may say that they deal with know-

[1] In the course of such a unification of the sciences, we should discover the meaning of the term "involve" in the connexion in which it was used above,—how it is that processes of a higher category "involve" those of a lower.

ledge as being *conception in the medium of judgment*; and they seek (*a*) to justify the realistic implication in the judgments, and (*b*) more and more clearly to determine the conceptions.

That this was the true function of Philosophy Socrates perceived long ago. The great significance of the principle he enunciated is only concealed by the very simple and obvious form in which it presented itself to his mind. He held that in every dispute there is something upon which the disputants ought to agree; there ought to be a standard recognised by both, to which both can refer; if they had not agreed upon it, nothing but confusion could result. Hence, as Xenophon has it, he "led his respondent on to the underlying assumption" in any dispute. The standard of reference took the very simple form of a definition or determination, and consisted only in answering the question,—"What is the thing you are disputing about?" Hence he was led to distinguish two kinds of human knowledge: (*a*) clear and distinct thought (ἐπιστήμη), obtained by using definitions; this is a common ground on which different men can meet and understand one another; (*b*) ordinary opinion (δόξα), more or less haphazard and vague, and leading, when it pushes itself beyond its limits, to endless conflict and divergency. This corresponds to the distinction already drawn between partially unified and non-unified knowledge; but I have referred to Socrates here, in order to draw attention to a very significant ambiguity in his way of putting the question, "What is the object of investigation?"—an ambiguity on which Plato's Idealism, as an Ontology, went to wreck, and one which for modern philosophy might be regarded as an object-lesson.

The purpose of Socrates in asking the question was to arrive at a clear determination of conceptions—*i.e.* at real knowledge. Now real knowledge is knowledge of reality; hence Plato went on to infer that there must be real entities, to which the conceptions, as constituent elements of knowledge, correspond; real objects of knowledge, that are quite *different* from the things of sense. Now by this procedure the fact which Epistemology continually emphasises, as the most fundamental constituent of knowledge, is ignored. Granted that in answer to the question τί ἐστι, we have obtained our clear conceptions—that we know what they "are" *as conceptions*; how do we know that they are anything more than thinkable and free from contradiction? The question τί ἐστι, with a deeper meaning, remains; in what sense can they be referred to or predicated of reality? or (more generally) what is the justification for *any* such reference? The conceptions only form elements of knowledge when they occur in the medium of

judgment; and every judgment contains an objective reference.

There is a curious resemblance between the Socratic use of the question τί ἐστι and the method of Lotze; this is seen most clearly in the part of Metaphysic which the latter writer calls "Ontology." Here we have only a determination of conceptions: Being, Individuality (*Dingheit*), Change, Causation. The result is that we have no real theory of knowledge; there is no examination of the processes of judgment by which these conceptions are referred to reality. They are made consistent, but we have not by this means got beyond the conscious Subjects whose mental products they are[1]. But in the "Cosmology" we take our stand at once in the world of objective realities, when examining "the forms in which the particular elements of actuality are united in one orderly cosmos" (Space, Time, Motion, Matter, etc.); and similarly the Psychology distinguishes from the objective world "a world of spirits by which it is apprehended." But the distinction is given no *locus* or standing as a definite factor in our knowledge; like the others, it appears to be picked up at random. The inconclusiveness of a discussion conducted on these lines becomes painfully apparent to the reader. How inconclusive it is may be seen by contrasting with it Mr Bradley's method of approaching the same questions in his "Appearance and Reality." According to him, Time, Change, and (in general) all qualities and modes which involve Relations, are *facts*, but "there is no presumption anywhere that any *fact* is better than appearance" (p. 207)—even though "experience compels us to adopt" the fact. The "fact" is an appearance if it is found on examination to be self-contradictory. Lotze, on the other hand, *because* "experience compels us to adopt" the fact, endeavours to free it from contradiction. How are we to judge between these diametrically opposed points of view—apart from Epistemology? Lotze would probably reply that if "the very essence" of the idea of relation *contradicts itself*, then unless the universe is a bad joke, the relational point of view is a pure illusion and cannot apply to reality at all[2]. In this case we should have an absolute antithesis between reality and appearance; but we cannot maintain this and at the same time argue that "appearances are facts, which somehow must qualify reality" (pp. 131, 2).

[1] We are told (*Met.* § 143) that "experience compels us to adopt them"; but what exactly is implied in this, Lotze nowhere inquires. I am aware that in the third Book of the Logic Lotze makes some contributions to the Theory of Knowledge; but I do not think they are of a character to call for any modification in what has been said.

[2] Mr Bradley almost hints as much on page 34.

Reality would be left as the pulseless identity of a Spinozistic "substance" or Parmenidean "being," wherein all distinctions are wiped out and utterly annihilated: it would contain within it no points of relation—nothing that is distinguishable from anything else. The theory which makes this its supreme principle must, when pushed to its ultimate conclusion, commit suicide by condemning even the fact of knowledge as an illusion; for knowledge *without* distinctions and relations is nothing, and *with* them it only "stains the white radiance of Eternity." Still, these considerations do not dispose of Mr Bradley's arguments in his first part (on "Appearance"), nor do they touch the question of how far it is justifiable to start with a wholly uncriticised distinction between appearance and reality. These questions have to be enlightened by epistemological considerations, to which Bradley and Lotze pay comparatively little attention.

It is in vain for Philosophy to devote itself to the analysis of conceptions unless it recognises that conceptions only constitute knowledge when entering into the synthesis of Judgment; and I cannot see how any progress can be made until the epistemological implications of this synthesis are brought out and probed to the bottom—probed much more thoroughly than has yet been done by any writer, with the probable exception of Hegel.

IV.—THE PHILOSOPHY OF HERBERT OF CHERBURY.

By W. R. Sorley.

Edward Herbert, the author of the *De Veritate*, was the representative of a branch of the powerful family of Herbert and inherited the lordship of Montgomery Castle, the chief stronghold of North Wales. He was born at Eyton in Shropshire on March 3, 158$\frac{2}{3}$, matriculated at University College, Oxford, in 1595, and seems to have resided in Oxford till about 1600: his university career being interrupted, first by his father's death, and afterwards (when he was not yet sixteen) by his own marriage. During the ten years between 1608 and 1618 he led an adventurous life chiefly on the continent, engaging in many quarrels private and public. In 1618 he was appointed Ambassador at Paris—an office from which he was suddenly recalled in 1624. King James rewarded him with an Irish peerage, and Charles I. created him an English peer as Baron Herbert of Cherbury in 1629. In the Civil War he tried to remain neutral, but was forced to join their side by the vigorous action of the Parliamentary party. He died in London on August 20, 1648. The Autobiography, which he began when over sixty, does not carry the record of his life beyond 1624. It was first published by Horace Walpole in 1764. His Poems were published after his death by his son. His histories of the Duke of Buckingham's expedition to Rhé and of Henry VIII. were issued by himself, and were indeed bids for royal favour.

His most important work *De Veritate, prout distinguitur a Revelatione, a Verisimili, a Possibili, et a Falso* was begun in England and "formed there in all its principal parts"; and after its publication had been urged by Hugo Grotius and sanctioned (as he thought) by a sign from Heaven, he printed it at Paris in 1624. To the third edition (London, 1645) he

added a treatise *De Causis Errorum*, with a shorter dissertation entitled *Religio Laici* and an *Appendix ad Sacerdotes*. The *De Religione Gentilium* appeared in the same year (1645). In 1768 was published *A Dialogue between a Tutor and his Pupil* which bears his name on the title-page, and must have been written either by himself or by a follower who had imbibed his views[1].

The *De Veritate* was thus published thirteen years before Descartes's *Discours de la Méthode*, sixteen years before Hobbes's *Elements of Law* was written, and sixty-six years before Locke's *Essay* appeared and turned English philosophy into the new way of ideas. Francis Bacon alone of the great reconstructors of philosophy was prior to Herbert. In his time the power of the Scholastic philosophy had been broken but not destroyed. The schoolmen had been driven from the English Universities after the Reformation; but their influence had begun to re-appear there in the last quarter of the sixteenth century[2], and in this way had reached both Bacon and Herbert. Its effect upon both was similar: it led them to emphasize the opposition between their new thought and preceding philosophy, and to attack the Scholastic method. Hence Bacon's impressive appeal to nature as the sole pattern and foundation of human knowledge as against the authoritative teachers of the Schools. And it was quite in Bacon's spirit that Herbert found it necessary to cast aside his books in the search for truth[3].

Herbert was a younger contemporary of Bacon's, and, like him, a man of mark at the English Court. They cannot fail to have been known to one another by report, can hardly fail to have met personally. But each carried out his work in apparent unconsciousness of the investigations of the other. Perhaps neither lost much by his independence. They agreed in their attitude to tradition; but in other respects their work lay along different lines. Bacon started with the particular facts of sense-experience, and strove to exhibit the method of the sciences: the sifting and ordering of observed facts and the rise from them to general principles explanatory of the laws of nature. Herbert had not Bacon's comprehensive view of

[1] In an article contributed to the *Welsh Review* for March 1892, I have given some account of Herbert's life and character with a brief estimate of his philosophical position.

[2] Cf. J. Freudenthal, 'Beiträge zur Geschichte der englischen Philosophie,' in *Archiv für Geschichte der Philosophie*, IV. 600. This valuable series of articles, which appeared in vols. IV., V., and VI. of the *Archiv*, deals exhaustively with Everard Digby (1550–92), Sir William Temple (1553–1626) and Lord Brooke (1608–43).

[3] *De Veritate*, p. 3, 3rd edit.

different fields of experience, nor did he work out his method with anything like Bacon's grasp of detail. But he had insight into a deeper problem—a problem in which the data of sense were not assumed as ultimate elements. He investigated the nature and conditions of truth, while Bacon may be said to have sought only the canons of evidence according to which sense-given data might be fairly transmuted into general principles.

It is significant that the question of method, in one sense or another, formed the initial problem for both Bacon and Herbert, and later for Descartes. The failure of mediaeval science and philosophy made the founders of modern thought look, in the first place, not for a new system, but for a new comprehension of the problem to be solved and of the means required for its solution. From the time that Peter Ramus directed his criticism against the Aristotelian logic, the question of method had occupied a leading place in philosophical discussion. And this is most marked in the most influential thinkers. Bacon prefaced his 'Instauratio Magna' by a 'Novum Organum,' a new method of science which was to put certain knowledge in the place of scholastic disputations and sophistic systems. Herbert and Descartes pushed their inquiries even further into the nature of knowledge. What is so clear—so Descartes stated the problem—as to be beyond the reach of doubt? and what are the conditions of that clearness? Herbert asks the familiar question What is truth? and what he seeks is not merely, nor in the first place, the things which are true, but the nature of truth itself and its underlying conditions. The search for truth thus comes to be an inquiry into mental faculties and into the laws in accordance with which they are harmonised with their objects.

An approach is thus made to the kind of questions which, since the time of Kant, have been known as epistemological, or belonging to the theory of knowledge. It is true that, neither in Herbert nor in Descartes, is there any clear assertion, such as is afterwards found in Locke and in Kant, that philosophy must begin with, and that its results depend upon, an inquiry into the nature of knowledge. If we were to classify systems of philosophy after Kant's fashion as Dogmatic, Critical, and Sceptical, Herbert's might not be placed, as Kant's own philosophy always is, and Locke's ought to be, in the Critical division. But such groupings are apt to overlook the more fertile thoughts in a system. And in Herbert we may find at least the suggestion of a theory of knowledge, in his assertion that we must inquire into the conditions under which mind enters into conformity with objects, and the related assumption that

truth is to be found and held by reflection upon mental faculty[1]. Indeed the whole fabric of Herbert's thought seems to me to rest upon an epistemological conception[2]—a conception too easily reached, perhaps, but of prime importance for his system. It is that of a harmony or analogy between faculty and object, microcosm and macrocosm[3].

In the preface to the second edition of his *Critique of Pure Reason*[4], Kant remarks that "it has been hitherto assumed that all our cognitions must conform to objects," and the poor progress made by metaphysics hitherto is laid to the blame of this assumption. He proposes to pave the way for a more fruitful investigation of metaphysical questions by changing the point of view and assuming "that objects must conform to our cognition": a "revolution" which he compares with that effected by Copernicus in our conception of the stellar system when he asserted that it was the observer that moved and not the stars. That Kant has overlooked a third possibility—the correspondence of faculty and object such that the latter undergoes no change of nature in being received into the *a priori* forms of mind—is the burden of Trendelenburg's well-known criticism of Kant's doctrine when applied to space and time. This conception of an analogy—or 'pre-established harmony'—between faculty and object, microcosm and macrocosm, appears to me the fundamental conception of Herbert's philosophy.

We are too apt to think of the question of the mode of cognition as purely a modern question, dating from the time of Locke. But Locke did not introduce the question: though he was the first so to define its relation to all other philosophical questions as to make them depend upon it. When Kant says it has been hitherto assumed that our cognition must conform to objects, he is referring to the doctrine of perception which

[1] *De Veritate*, p. 5.

[2] It is interesting to notice that Descartes recognised the novelty of Herbert's method. In a letter dated 16 Oct. 1639, he thus expresses himself: 'Il examine ce que c'est que la vérité; et pour moi je n'en ai jamais douté, me semblant que c'est une notion si transcendantalement claire qu'il est impossible de l'ignorer. En effet, on a bien des moyens pour examiner une balance avant que de s'en servir; mais on n'en auroit point pour apprendre ce que c'est que la vérité, si l'on ne la connoissoit de nature: car quelle raison aurions-nous de consentir à ce qui nous l'apprendroit si nous ne savions qu'il fût vrai, c'est-à-dire, si nous ne connoissions la vérité?'—*Œuvres*, ed. Cousin, VIII. 168. This may be compared with Hegel's criticism of Kant for asking us to know before we know.

[3] *De Veritate*, p. 30, etc.

[4] *Werke*, ed. Hartenstein, III. 18.

the Scholastic writers had founded upon Aristotle's teaching: except that the antithesis between object and faculty had been emphasized for him by the Cartesian doctrine of the complete opposition between mind and matter. The difficulty of conceiving how any interaction can take place between mind and matter can hardly be said to have been taken account of before Descartes. Before his time the question concerned simply the ascription of activity or passivity to the mind in cognition. The Scholastic doctrine, as expressed by Aquinas, was that perception was a 'passio mentis' produced by the activity of the object which impressed its form or image (or to use the term which Descartes and Locke have made familiar, an idea) upon the mind. The operation of the active intellect was regarded as having no connection with our other cognitive faculties. On the other hand, the Scotists ascribed some share of activity to the mind in perceiving the object: and a doctrine of similar import was maintained by Everard Digby[1] shortly before Herbert's time.

Herbert never ascribes passivity to mind. It acts but is not acted upon[2]. Things do not act upon it, but are put within the sphere of its operation[3]. But man is a complex consisting of body as well as mind, and whatever is passive in him is body[4]. Body however is not purely passive. There are indeed three kinds or sources of activity: in the first place, external objects and their forms or images preserved in memory: "the idea of the beautiful, for instance, affects us, to say nothing of the idea of the base"; secondly, certain principles implanted in the bodily humours are active; actions arise from their motion, weight, and stimulation; and body is a complex of these humours formed on the model of the external world and consequently analogous to the macrocosm; thirdly, Mind (or, as it is called in relation to body, Soul) is active[5]. The sphere or range of all this activity is man; and the human body is both passive and active. Mind, however, is never passive: though it requires an occasion or the presence of objects to awaken its activity, even in its highest operations[6]. Yet Herbert speaks of faculty—the internal active principle—as affected (or even, in popular language, altered) by the object. The act in which faculty thus meets object is called *Sensus*. *Sensus*, or the act of apprehension, is thus the result of a double or mutual action. "For objects act upon us and we

[1] Freudenthal, *loc. cit.* IV. 472–3. [2] *De Veritate*, p. 91.
[3] Non agitur in mentem nostram, sed in ejus exercitationem aliquid proponitur. — *De Veritate*, p. 95.
[4] *De Veritate*, p. 72. [5] cf. *Ibid.*, pp. 71, 72. [6] *Ibid.*, p. 27.

also act upon objects"[1]. It is hard to defend the logical consistency of the view which regards the object as in some way affecting the faculty, without the faculty being in any way passive. It is true that a dull and transitory consciousness (*sensus*) is ascribed to body[2], which is of course passive; but Herbert's statements as to objects affecting faculty are not limited to bodily sense. Such explanation as can be offered of the difficulty must be sought in the harmony which Herbert conceives to exist between faculty and object. The mental faculty 'conforming' supplies a form analogous to the object as it exists[3]; the object 'conformed' neither undergoes an alteration of nature, nor does it produce one, but only enters, as it were, within the faculty's range of view. Knowledge therefore does not change the object; and although Herbert speaks of the object as changing the faculty[4], it is only in so far as it calls forth the active power which corresponds to the special nature of the object and to which he gives the name of faculty. The whole process is only intelligible on the supposition of a thoroughgoing 'pre-established harmony' between microcosm and macrocosm. In this harmony the human organism, fashioned on the model of the external world and containing the sense-apparatus which lead to the 'inner court' of consciousness, forms the bond of union.

Without maintaining a purely spiritualistic interpretation of phenomena such as Berkeley afterwards put forward, or as was suggested under the influence of Plato by Herbert's younger contemporary Lord Brooke, and on the other hand, still further removed from such a materialistic account of the phenomena of consciousness as was soon afterwards enforced by Hobbes, Herbert was yet without any anticipation of the abrupt antithesis which Descartes drew between mind and matter. On this account his theory is quite unlike that parallelism of the modes of extension with those of thought which was elaborated by Spinoza, and corresponds much more nearly to such a conception as that of Leibnitz whose thought was ruled by the notion of Continuity. Herbert too has his own idea of the continuity of the universe: an idea of divine providence

[1] *De Veritate*, p. 68; cf. p. 69: 'Nulla enim vel dari videtur adeo sincera actio naturalis, ut ex toto sit compositionis expers. Quasdam igitur actiones ab objectis, quasdam a nobis ipsis ortum ducere observare possumus; uti enim pulchrum, deforme, etc., agunt in nos, ita et nos reagere in objecta, Sensus Internus (judex in objectis suis supremus) docet.'

[2] *Ibid.*, p. 91.

[3] *Ibid.*, p. 95: 'Quæ autem menti sunt analogæ per quandam formarum communionem inter se percipiuntur.'

[4] *Ibid.*, pp. 13, 73.

manifesting itself partially but clearly in our intelligence, but gradually obscured in matter, as light fades into darkness the farther it is removed from its source[1].

Herbert's whole doctrine of Truth rests on this conception of harmony. "Truth is a certain harmony between objects and their analogous faculties"[2]. But there are different kinds or degrees of truth, and error is due to confusing them. Four kinds of truth are to be distinguished: truth of the thing, truth of appearance, truth of concept, and truth of intellect. These seem to be arranged in an ascending scale. The first does not exclude the others; the last includes all the preceding, being the 'conformity' of the several 'conformities' they involve.

Truth of the thing is defined as "the inherent conformity of a thing with itself, or that reason in virtue of which everything agrees with itself"[3]. To everything that is (ens) there is a coeternal truth of its being (essendi) convertible with it and "appropriately called by modern writers *passio entis*"[4]. So far the term truth might seem inapplicable: the statement involving no conformity but only bare identity,—no reference to cognition at all, unless in the phrase 'passio entis'—the only place in which knowledge is referred to as passive. But it is clear from what follows that the 'truth of the thing' is not without relation to mental faculty. "That is a true and adequate object" says the author "which when it has regard to our analogy can so change our faculties that there is nothing in the object upon which this analogy cannot be brought to bear"[5]. Whether there is any such object is doubtful, the author says; but doubt seems only to belong to the question of the existence of an object which is adequate as well as true, not to that of a true object simply. It seems obvious however that for the truth of the thing a certain analogy to our faculties is required. It must conform, if I may put it so, to the general conditions of objectivity. Hence Herbert enumerates the following conditions of the truth of the thing, or, as it might better be called, truth of the object[6]: (1) it must stand within our analogy; (2) it must have a due magnitude: neither infinite nor infinitesimal, for these escape human perception; (3) it must have some characteristic difference; and (4) it must be cognate to some faculty[7].

Truth of appearance is defined as the conditional conformity of the appearance or image (species) of the thing with its

[1] *De Veritate*, p. 70. [2] *Ibid.*, p. 68.
[3] *Ibid.*, p. 6. [4] *Ibid.*, p. 8. [5] *Ibid.*, p. 13.
[6] *Ibid.*, p. 23: 'Veritas objecti (vulgo rei).'
[7] *Ibid.*, pp. 13–15.

prototype. Of this kind of truth four conditions are given: (1) that the object continue a sufficient time; (2) that it have an appropriate means of transition; (3) that it be at a proper distance; (4) and that it occupy a convenient position[1]. Appearance stands midway between object or thing and concept. Its conditions are still external conditions.

The Concept is an internal fact. Its truth is "the true internal conformity of an object according to its appearance"[2]. Its conditions are accordingly all subjective: (1) that the organ be perfect (integer); (2) that the organ be imbued with no evil quality; (3) that the faculty which feels that it feels do not waver; and (4) that the analogous faculty be applied[3].

These exhaust the conditions[4] required for simple truths. If they are present, truth of intellect is added: and intellect has its own truths "not dependent on the external ministration of things, and yet silent except in presence of objects"[5]. But this always has to be borne in mind, that "faculties are not rightly conformed unless with their proper cognate objects"[6].

Complex truth touches the universal nature of things, and depends on this one proposition: "Things which affect our faculties in the same way are the same towards us." Its canon is: "The intellect is true concerning universals when the particular truths are rightly conformed with one another"[7].

This exposition of the conditions of truth is at the same time an explanation of the possibility of error; for the cause of error lies in the intermediate stages between the thing and the intellect; unless the conditions of truth of the thing are given there is no object and therefore no room for error; if supplied with true premisses only, the intellect cannot err[8]. Error therefore can only attach to the appearance or the concept through defect in the means of communication or in the organ of apprehension or some other of their conditions; there may thus be not only a false concept about a true appearance, but even a true concept concerning a false appearance[9]. But the root of all error is in confusion—in the inappropriate connexion of faculty and object—and it belongs to the intellect to track it to its source and so to dissipate it.

[1] *De Veritate*, pp. 16–22. [2] *Ibid.*, p. 24.
[3] *Ibid.*, pp. 25, 26.
[4] Herbert calls only the last three kinds of truth '*conditional* conformities'; but, as Gassendi remarked (*Opera*, 1658, vol. III. p. 412), the first kind also is made conditional by conditions being laid down for it.
[5] *De Veritate*, p. 27, cf. p. 24. [6] *Ibid.*, p. 26.
[7] *Ibid.*, p. 29. [8] *De causis errorum*, p. 4.
[9] *De Veritate*, p. 24.

The preceding anticipates the statement of the seven propositions which embrace, according to Herbert, the whole doctrine of Truth. They are as follows: (1) Truth is. (2) This truth is coeternal or coeval with things. (3) This truth is everywhere. (4) This truth is manifest of itself—a proposition which marks the transition from the truth which is in things in themselves to that which is in their appearances: it is manifest in itself; but many conditions must be fulfilled for it to be manifest in us. Appearances may be false; things cannot. Yet there is a truth of its own even in false appearance; for it truly appears so, though it is not true according to the truth of the thing. (5) There are as many truths as there are differences of things. In accordance with this proposition the whole realm of being is divided according to its essential differences: by common differences (of varying degrees of generality) which can be detected in a number of things, and by proper differences belonging to one thing only and constituting its individuality. (6) The differences of things are known by the faculties or powers implanted in us—a proposition which suggests the requirements of the truth of the concept. "Every faculty has a certain property, by means of which it may be conformed with its cognate object." (7) There is a truth of these truths, which is the truth of intellect, and completes the system of knowledge. "By means of the above seven propositions" concludes Herbert "and in no other way, can the wonderful contradictions of authors be resolved: for they refer now to this, now to that kind of truth, totally ignorant of the grounds which distinguish them"[1].

The whole doctrine hinges on this, that mind corresponds with things not only in their general nature but in all their differences of kind, generic and specific. Every object is cognate to some mental power or faculty, and to every difference in the object there corresponds a different faculty. Herbert attempts no account of nature, and his psychology is only introduced in the interests of his doctrine of truth; but it is clear that there cannot be fewer faculties than there are differences of things[2]. "Every new principle of individuation spreads abroad new images (or ἀπόρροιαι) to which some new faculty corresponds in us, and manifests itself by a new mode of apprehension (*sensus*)"[3]. A faculty is defined as any internal force which unfolds a different mode of apprehension (*sensus*) to a different object"[4]. Faculties are spoken of as *radii animæ* which perceive objects or rather the images given out by objects in accordance with mutual

[1] *De Veritate*, pp. 8–12.
[2] *Ibid.*, p. 30.
[3] *Ibid.*, p. 33.
[4] *Ibid.*, p. 30.

analogy. These images may be conveyed by the same sense-apparatus and yet be apprehended by different faculties, as is the case with figure and motion[1]. Thus there is said to be one faculty for apprehending the resistance of objects, another for apprehending their essence, and others adapted to the apprehension of their relations, means, place, time, causes, end. Again, one faculty considers the internal analogy according to which a thing is judged useful or hurtful, another wills or refrains from willing an action, another investigates the particular nature of an object, another its common nature[2].

At first sight this seems like the faculty-psychology run mad. But if we look into the matter more closely it may appear that there is safety—or at least sanity—in the very number of the faculties. They are so numerous that it would be almost impossible for Herbert to assign them that degree of independence which was frequently ascribed to the "faculties of the mind" by psychologists of a recent generation. Faculties —if it be allowable to interpret Herbert with some degree of freedom—are simply modes of mental operation; and mind of necessity operates differently as different kinds of objects are brought before it; showing always an aspect of its cognitive power analogous to the object presented to it. All that is of the essence of Herbert's doctrine is that the power of knowing an object is inherent in mind; according therefore as there are differences in kinds of object, so do differences exist within the power of knowing.

It is important to make this remark here that we should not exaggerate the distinction between the classes into which Herbert arranges these faculties. These classes are Natural Instinct, Internal Sense, External Sense, and Discourse or reasoning. They are classes formed by our reflection upon the varied modes of mental activity. They are not separate powers; and although Herbert may perhaps have sometimes yielded to the temptation of speaking of them as such, we can find a clear statement of another doctrine—of a view according to which all mental faculty is to be regarded as informed in less or greater measure by the intellect which is really a manifestation in us of the universal divine providence. This marks, at the same time, Herbert's divergence from the Scholastic doctrine of the active intellect as functioning altogether apart from the other mental faculties. "Our mind" he says "is the highest image and type of the divinity, and hence whatever is true or good in us exists in supreme degree (*eminentissimo gradu*) in God. Following out this opinion we believe that the divine image has further

[1] *De Veritate*, p. 78. [2] *Ibid.*, p. 31.

communicated itself to the body. But as in the propagation of light there is growing loss of distinctness as it gets farther from its source until it fades at last into gloom and obscurity, so that divine image which shines clearly in our living and free unity, first communicates itself to Natural Instinct or the common reason of its providence, then extends to the numberless internal and external faculties (analogous to particular objects), closes into shade and body, and sometimes seems as it were to retreat into matter itself"[1].

Natural Instinct is the name given by Herbert to the faculty producing those common notions which arise from the nature of the intellect and are not communicated to it by objects or attained by reasoning[2]. By means of them we make judgments concerning objects and without some of them experience would be impossible[3]. As a faculty Natural Instinct is said to be "the immediate instrument of universal divine providence and a certain part of the same written in our minds"; as mental activities, natural instincts are defined to be "those activities of the faculties which exist in every normal man (*in omni homine sano et integro*), and by which the common notions concerning the internal analogy of things (such as those concerning the cause, means, and end of things, good, evil, beautiful, joyful, &c.) which are of the highest importance for the preservation of the individual, species, race, and universe, are formed without the aid of discursive thought (*per se etiam sine discursu conformantur*)"[4].

The term Natural Instinct has been adversely criticised, and is certainly unfortunate. But we must remember that this use of the term Natural does not imply the modern opposition between natural and rational. For Herbert, natural means much the same as divine[5]. For him as for his friend Grotius (whose *De Jure Belli et Pacis* appeared in 1625, the year following the first edition of the *De Veritate*) the law of nature is the law of God, and of supreme authority. The only antithesis implied is the ancient one between nature and convention (as shown in the phrase natural law), and perhaps also the more modern opposition between nature and revelation (as in the term natural theology). Natural Instinct is therefore simply the Aristotelian νοῦς or intellect, described in terms of the Stoic philosophy which, under the influence of the jurists, had determined the language of European thought.

[1] *De Veritate*, p. 70.
[2] *Ibid.*, p. 38. [3] *Ibid.*, pp. 27, 28. [4] *Ibid.*, p. 44.
[5] Cf. *De Veritate*, p. 175: 'Deum sive Naturam.' In the *Elenchus Verborum*, 'Natura' is defined as 'providentia divina universalis.'

The use of the term Instinct is also not without precedent in this connexion, as has been pointed out by Hamilton[1] and Rémusat[2]. And, however misleading it may be, it is easy to see why it was chosen by Herbert. The notions supplied by Natural Instinct are apprehended with an immediateness which may be compared with instinctive action. As in instinct, the steps are absent by which reasoning might attempt to arrive at the same results. The faculty does not work by gradual stages. The truth it seizes is its own truth and does not come from without; so that the distinction between faculty and object is in a sense obliterated. It is to be remembered also that Herbert's Natural Instinct produces practical as well as cognitive notions: the first principles of morals as well as of knowledge. We can thus see why it should be identified with these instinctive activities of the lower forms of life, which, working in them unconsciously, contribute to the preservation of the individual and of the species. The same divine providence which is thus manifest in nature works consciously in man, and supplies the principles necessary for his preservation as a rational and responsible being working towards an end which is not merely individual and not merely racial, but takes in the universe in its scope[3].

This is brought out more clearly in considering the object of Natural Instinct. As belonging to intellect, it is its function to harmonise the various harmonies which the other faculties attain: whether in the way of cognising objects or of deciding upon their good or evil tendencies. "All things are permeated and purified by it." And as all particular goods lead up to eternal blessedness as their ultimate end, so all the preliminary faculties are ranged under that which seeks eternal blessedness: and this is the proper object of Natural Instinct[4].

It remains to give some account of Herbert's treatment of the Common Notions of Natural Instinct and of the characteristics by which they can be distinguished. These are the best-known points of Herbert's philosophy—indeed the only points known to most students of philosophy, who derive their knowledge of Herbert from Locke, who again was induced to consult

[1] Edition of Reid's *Works*, p. 761, Note A § 5. Cicero and Bacon are among those referred to as having used the term in this connexion.

[2] *Herbert de Cherbury* (1874), p. 238.

[3] Cf. *De Veritate*, p. 44. Descartes, on the other hand, seeks to distinguish between two kinds of instinct: the purely intellectual instinct, natural light or *intuitus mentis*, which is in us as men, from the impulse to preservation which is in us as animals.—*Œuvres*, VIII. 169.

[4] *De Veritate*, pp. 63–5.

the *De Veritate* because informed that he would find there a list of 'innate principles'[1].

Common notions are divided by Herbert into two classes: those which are formed without any assistance from discourse or the ratiocinative faculty, and those which are only perfected by the aid of discourse. The "six marks of his *Notitiæ Communes*" quoted by Locke are put forward by himself as distinguishing the first class of Common Notions from the second. They are as follows:—

(1) *Priority.* Natural Instinct is the first of the faculties. By means of it all creatures tend to their preservation; and, as it gradually unfolds itself to objects, it everywhere anticipates the notions of discourse. Thus the beauty of a well-built house is first perceived by natural instinct before the detailed judgment as to the elegance of lines and proportion of parts has been carried out by the understanding[2].

(2) *Independence.* The understanding draws conclusions from premises: that only which depends on nothing higher than itself and from which the whole series of proofs can be deduced belongs to Natural Instinct.

(3) *Universality.* "Therefore we make universal consent (if you except the insane) the highest rule of Natural Instinct. For we always hold particulars as suspect and savouring of imposture, or at least as permeated with errors. As derived from the very wisdom of Nature, common notions are universal, although they may be applied to particulars by means of discourse." In this sentence Herbert passes without warning from one meaning of universality to another: from the acceptance of the common notions by all sane men to a universality belonging to the nature of the notions, irrespective of their acceptance.

(4) *Certainty.* "So unique is their authority, that he who doubts of them disturbs the whole nature of things in such a way as to despoil man himself. It is a crime to dispute these principles; if they are understood they cannot be denied."

(5) *Necessity:* "for there is no common notion that does not make for the preservation of man."

(6) *Mode of formation* ('*modus conformationis*'). They are formed without delay as soon as the meaning of the things and words is understood.

The connexion between these different marks may be brought out by repeating them in another order. In the

[1] Locke's *Essay*, I. ii. 15, and the notes in Prof. Fraser's edition, vol. I. pp. 80, 81.

[2] *De Veritate*, p. 60.

organism of knowledge all other truths rest upon the Common Notions of Natural Instinct. They are the principles of knowledge and therefore *independent.* Accordingly, they possess a *certainty* which does not belong to derived truths, and any doubt regarding them shakes the whole fabric of knowledge. They are further required not merely for knowledge, but for the life of man—*necessary* for his preservation. These three characteristics, it is to be noted, apply to the logical position of the Common Notions. The other marks have to do with their manifestation in the individual mind and with the universality of their acceptance. They are accepted as soon as the meaning of the terms in which they are conveyed is understood (*mode of formation*), and they appear *prior* in time to the propositions which apply them; while all men who are in full possession of their faculties yield them their assent (*universality*).

Herbert's six marks of the first class of Common Notions may therefore be reduced to these: first, they are logically fundamental, not only for knowledge, but also for the conduct of a rational being. This includes what Herbert calls their independence, certainty, and necessity. Secondly, they are prior to other cognitions in the order of development of the individual mind. This includes Herbert's first and last marks—priority and mode of formation. Thirdly, they are present in every sane individual mind. This is what Herbert means by their universality—though he slips an additional meaning in beside it—and is used by him as the supreme test of Natural Instinct, and thus the highest test of truth.

It must be admitted that this interpretation of Herbert's tests of Common Notions goes beyond the text. Aristotle's distinction between the πρότερον ἐν φύσει and the πρότερον πρὸς ἡμᾶς had not been forgotten in Scholastic times[1]; but it does not seem to have been present to Herbert's mind or he would not have been likely, without some explanation, to have claimed psychological as well as logical priority for his common notions. Nevertheless, it is important to notice that some of his tests are logical or epistemological: apply not to the manifestation of knowledge as it takes place in the individual mind, but to the conditions or nature of knowledge apart from any temporal process. Further, it is noteworthy that in this list—and indeed throughout the whole work—the function of Natural Instinct and its common notions is not limited to cognition but extends to moral and even aesthetic activities. And all these are regarded as subordinate to the end of self-

[1] Freudenthal points out a similar distinction in Temple, who was influenced by Ramus—*loc. cit.* v. 30.

preservation. Indeed this notion holds in the *De Veritate* a position of equal prominence with that which it occupies in the *Leviathan* of Hobbes and Spinoza's *Ethica*.

Unfortunately Herbert does not distinguish the tests which refer to logical conditions from those whose reference is to the psychological process of the individual mind; he hardly uses at all the strictly logical or epistemological tests, and chief stress is laid upon universal consent. This is constantly appealed to alone as "the highest criterion of truth"[1]. "What is in all men's ears" he says "that we accept as true, for what everywhere happens could not happen without that universal providence which dispenses the conditions of actions"[2]. Herbert thus falls back upon Cicero's maxim "omni in re consentio omnium gentium lex naturæ putanda est." The whole doctrine of Natural Instinct itself depends upon this criterion: "those things which obtain credence by universal consent must not only be true but must be formed by some internal faculty"[3]; reasoning could not convince us of them: they must be supplied by a natural instinct. Universal Consent is accordingly declared to be "the first and highest theology and philosophy"[4].

This is no merely formal objection. It affects the value of Herbert's thought in the closest way. The appeal to Common Consent is open to objection from two points of view. It may very easily be used as a device to save the trouble of thinking; and often has been so used by members of that school of Common Sense philosophy of which Herbert must be regarded as the founder. On the other hand if we apply the test stringently it may well be argued that there are no truths which can satisfy it, that there is nothing so certain that it has not been ignored or denied[5]. This line of argument was used with effect by Locke. And it is hardly met by the reply that the truths may be unconsciously held—may be implicit in the mind which has never realised them: for this reply is equivalent to appealing to a logical rather than a psychological test: it gives up universal consent as the highest criterion.

Herbert's procedure contrasts with that of Descartes. A logical test of truth might be extracted from the six

[1] *De Veritate*, p. 39. [2] *Ibid.*, pp. 2, 3. [3] *Ibid.*, p. 38, cf. p. 3.
[4] *Ibid.*, p. 40.

[5] It is in this reference that Descartes distinguishes between his own principle of truth and Herbert's; 'L'auteur prend pour règle de ses vérités le consentement universel. Pour moi, je n'ai pour règle des miennes que la lumière naturelle, ce qui convient bien en quelque chose; car tous les hommes ayant une même lumière naturelle, ils semblent devoir tous avoir les mêmes notions. Mais il est très-différent, en ce qu'il n'y a presque personne que se serve bien de cette lumière.'

characteristics which he enumerates; but when it comes to the establishment of any fundamental truth he rests the argument almost entirely upon an appeal to common consent. Descartes, on the other hand, put forward clearness and distinctness as the criterion of truth—a criterion quite as liable to misuse as universal consent. But when he proceeded to build up his philosophy, instead of gathering together all the propositions which might appear clear and distinct, he prosecuted the analysis further by seeking for the grounds or conditions of that clearness, and thus actually adopted a method which was not, like Herbert's, liable to be upset by any extension of our knowledge.

Herbert nowhere gives a complete account of the Common Notions which may be established by his method. He limits his investigation to the Common Notions regarding religion. With their establishment a great part of the *De Veritate* is taken up; and a separate work—the *De Religione Gentilium*—is devoted to the verification of his results on the field of what is now called Comparative Religion. To this portion of his work his direct influence as a thinker was almost entirely due. Locke even makes it an objection to his list of Common Notions of religion that "there are other propositions which, even by his own rules, have as just a pretence to such an original, and may be as well admitted for innate principles, as at least some of these five he enumerates, viz. 'Do as thou wouldest be done unto'"[1]. But this only shows that Locke had not 'consulted' Lord Herbert with much zeal. The Common Notions are not restricted to religion, although only those which concern religion are given in detail by Herbert. He excused himself from any full treatment of practical notions on the plea that he was meditating a separate treatise on Conscience.

Conscience is regarded by him as the 'common sense' of the internal senses. Immediately informed by Natural Instinct it passes judgment on particular goods, as discourse or understanding does on particular truths. It is on the dictation of conscience that mental good is to be preferred to bodily, common to private. That 'all evil is to be avoided,' and that 'we ought to be temperate,' are given as examples of common notions which conscience applies to particulars. Indeed Herbert even quotes in this connexion the negative precept corresponding to that which Locke blames him for omitting 'Do not that to another which thou wouldest not have done to thyself'[2].

[1] *Essay*, I. ii. 16. [2] *De Veritate*, p. 106, cf. p. 28.

Common notions are not even restricted to practical principles. Thus it is a common notion that there is a substance in things, or subject in which qualities inhere[1]. No attempt is made, however, to enumerate these principles or to put them in order; although Herbert himself dilates on the importance of doing so[2].

Thus Herbert cannot be said to have done more than lay down the principles, theoretical and moral, for the philosophy of Common Sense; but the whole scope of the Deistical movement of the succeeding century was determined by his inquiry into the Common Notions of religion. The principles which he lays down as taught by "common notions or universal consent" are five in number: (1) that there is a Supreme Deity; (2) that this Deity ought to be worshipped; (3) that virtue combined with piety is the chief part of divine worship; (4) that men should repent of their sins and turn from them; (5) that reward and punishment follow from the goodness and justice of God both in this life and after it. These five articles contain the whole doctrine of the true catholic church, that is to say, of the religion of reason. They also formed the primitive religion before the people "gave ear to the covetous and crafty sacerdotal order." What is contrary to them is contrary to reason and therefore false; what is beyond reason but not contrary to it may be revealed: but the record of a revelation is not itself revelation but tradition; and the truth of a tradition depends upon the narrator and can never be more than probable.

A careful account of Herbert's relation to the Deists is given by Lechler[3]. But Herbert's influence upon religious thought was not entirely on writers of a negative tendency. He is quoted and followed by the orthodox Culverwell[4] as well as by Blount and the deistical succession. Descartes, too, finds much piety and agreement with common sense in his religious views, and thinks they might be approved by orthodox theologians: though he is willing to leave the matter in the hands of the doctors of the Sorbonne[5]. It was when the controversy between Deism and orthodoxy had come to a head that Herbert was accused of atheism, or classed along with Hobbes and Spinoza as one of the "three great impostors"[6].

Herbert's title to originality is twofold. He was the first to make a systematic effort after a comparative study of religions: but he had no idea of truth as an historical

[1] *De Veritate*, p. 130. [2] *Ibid.*, p. 39.
[3] *Geschichte des englischen Deismus* (1841).
[4] *Light of Nature* (1652). [5] *Œuvres*, VIII. 170.
[6] Kortholt, *De tribus impostoribus* (1680).

development and he looked upon all the historical religions as simply corruptions of the pure and primitive rational worship. In this way he anticipated the abstract form of rationalism prevalent in last century, and thought that truth could be got by sifting popular belief and selecting the points on which all men are agreed.

His other claim to be regarded as an original thinker has received less notice. Yet he was the first writer who had any clear anticipation of that Critical method by means of which Kant gave a new direction to modern thought[1]. It must be remembered, however, that he does not anticipate the leading idea of Kant's criticism—the idea that objectivity itself is a creation of subjective function. Object and subject were regarded by him as independent but in complete harmony with one another. The subjective notion must therefore have a corresponding reality; and, by an easy transition, he let the witness of common consent serve as his test of truth instead of the analysis of consciousness. And it is chiefly on this account that his philosophy has had so little direct effect upon the main current of European speculation.

[1] This is seen by Lechler (*Geschichte des englischen Deismus*, p. 37 ff.) though, in contrasting Herbert with Kant, he does not draw attention to what seems to me the fundamental difference (cf. p. 43 n.).

V.—ASSIMILATION AND ASSOCIATION. (II.)

By James Ward.

In resuming after some interval this endeavour to determine more precisely the characteristics and mutual relations of these processes it may be well to retrace a step or two[1]. The laws and forms of association had been carefully studied before any very serious attempts were made to analyse the apparently elementary process of immediate cognition, or simple perception. And when at length this was attempted, it was natural to try first to explain the complexity discovered—as other complexities were explained—by the potent formulae of association. For perception being regarded as a "presentative-representative" process, the connexion between its two constituents, it was held, must be due either to association through similarity in some form, or to association through contiguity. But for association of any sort, if the word is to be used with any propriety, we must have two distinct factors—a presentation reproducing and a "memory-image" reproduced. In ordinary cases of simple perception, however, this duality cannot be discovered. Still it is evident enough in all forms of mediate recognition. Moreover no sharp line can be drawn between recognition that is clearly mediate and cognition that is possibly immediate. But now when we proceed to examine the prevailing expositions of association, we remark that under one name or other a *subsidiary process* is invariably presupposed, which seems identical with the "assimilating" process found in perception. It is thus obviously premature, possibly no better than explaining in a circle, to resolve this immediate cognition into "subconscious," automatic or instantaneous association; and this holds apart from any other objections there may be to such explanations.

We are bound then to examine separately this elementary process, which till recently has been so summarily disposed of as "association through perfect identity." The present A_n, it was said, "revives" the former $a_1 + a_2 + a_3 \ldots$ and instantly "fuses"

[1] Two perplexing misprints may at the same time be corrected:—*Mind*, N. S. ii. p. 351, 2nd paragr. line 5, 'psychological' should be 'psychophysical'; p. 357, 2nd paragr. line 2, 'resource' should be 'recourse.'

with them. But not only are these most inapposite metaphors devoid of all evidence but they are futile into the bargain. The notion of identity proves here nothing but a pitfall for the unwary. There is no warrant for such an association of identicals, and in fact no meaning in it. The process of assimilation depends on repeated impressions, no doubt, and can be perfected only by such repetition, but it does not itself "drag at each remove a lengthening chain." The sun may shine innumerable times on an insensitive stone and each time with the same result; but a sensitive subject is changed by every impression to which it responds. To attribute this change to past events that are "revived" on subsequent occasions, everybody must see on reflection to be nonsense. Neither is it the "fusion" of a new presentation with an old one qualitatively identical with it. For the old was presented to an inexperienced, while the new is presented to an experienced, percipient: in the one case he was only sensitive, in the other he is cognisant. Provided the percipient has attained to a sufficiently advanced stage of mental development he may recognise what he perceives as the same as, or like to, something he has experienced before; and when this happens he can also "ideally picture" or "remember" such experiences. But this does not happen in all cases even for such a percipient; and unless it does happen we are not entitled to speak of "free" ideas or memory images as the representative factors concerned. Only when there is recognition or remembrance are these ideas essential. But with percipients at a lower level of development, and in mere cognition, we have no evidence of such free memory-images: the representative process, whatever it is, at least in these cases falls short of such ideation or true memory. The question is:—*May not this simpler process be the source from which memory-images as separate and distinct presentative elements first take their rise?* Any adequate discussion of this question has been hindered by the confusion of retentiveness and reminiscence: of this we have a glaring instance in Dr Bain's identification of retentiveness with contiguous association[1]. But it has been hindered too by the psychophysical hypothesis—for which also Dr Bain, among many others, stands sponsor—that the seat of ideas is the same as the seat of sensations. For it is part and parcel of this hypothesis to sustain the Humian doctrine that ideas are but faint copies of original impressions—a doctrine that makes it almost superfluous to inquire how ideas arise. A brief review of the reasons, physiological and pathological that have combined to bring this

[1] Cf. former article *Mind*, N.S. II. p. 358.

hypothesis into comparative discredit—to say the least—will serve to open up this inquiry.

We may begin with the important distinction, to which laboratory experiments and pathological observation have independently led, between so-called "psychical," and so-called "cortical," affections. This terminology, due to Munk, is exasperating, but any attempt to amend it here might seem to beg the question in debate. The point to keep in mind is that both affections are central, the peripheral organs and nerves remaining always intact[1]. The most instructive cases are those in which sight is concerned, as in "psychical blindness" (Munk's *Seelenblindheit*); under this, word-blindness (dyslexia, alexia) and note-blindness (inability to read music) may be ranged as special cases. As parallel affections of hearing we have word-deafness and tone-deafness; and finally in what has been termed apraxia or asymbolia we have cases where, in consequence of central lesions, the patient is *non compos mentis* without being in the strict sense paralysed, deluded or insane. As the facts of psychical and cortical blindness are best known and have been most carefully investigated it will be well to keep mainly to these. The cases seem to pass gradually from one extreme in which the defect is almost purely one of sensation i.e. "cortical" to the other in which it is wholly or chiefly ideational or "psychical." Thus in the now classic case of Charcot's[2] we have a man possessed of a very exceptional visual memory not merely losing the visual images he once had but unable to acquire new ones: this man could sort coloured wools correctly but could not *picture* the colour of his wife's hair though he *knew* that it was called black. On the other hand in a recent case of Siemerling's[3], a patient who had lost all colour sensations and saw everything in monochrome could still perfectly well remember and imagine colours and coloured objects. Sometimes not only is there no serious affection of colour sense or visual acuteness but visual memory-images also are for the most part retained, so that old scenes can be recalled and familiar objects or persons accurately described; and yet the recognition of them is no longer possible when such persons or objects are actually present. In these cases, that is to say, there are "free ideas" in Höffding's sense but there is no visual cognition or assimilation. Sometimes the gap is still greater: the more concrete memory-images are lost, so

[1] Eventually, of course, they degenerate for want of use.

[2] *Œuvres complètes de J. M. Charcot*, tome iii. pp. 177—189, given in an abridged form by Prof. James, *Psychology*, ii. p. 58.

[3] "Ein Fall von sogenannter Seelenblindheit," *Arch. f. Psychiatrie*, xxi p. 291 ff.

that particular things can neither be described nor recognised, yet general images are still retained. Thus in a very instructive case of Groenouw's[1], the patient, a sculptor, could see that a certain statue set before him was a Mercury but did not identify it as one that he had himself modelled; nor could he, when urged to do so, give any detailed description of his own work. He could draw a picture of *a* sofa but not of the particular sofa in his own room. He could distinguish a church from a theatre, but owing to his inability, for the most part, to recognise particular churches or theatres and the like, he could not find his way alone.

We may agree to distinguish provisionally four forms of presentation, (i) the sensory impression, (ii) the so-called "revived impression" which is said to fuse with this in perception, i.e. "the representative element" of perception, (iii) the true memory-image of mediate recognition and (iv) general images, the representative element in conception. The facts of psychical blindness, then, seem to prove that these four are so far independent and distinct as to allow of any one or more being extinguished, in consequence of cerebral lesion, the rest still remaining substantially intact. If now it were possible to adduce unequivocal anatomical evidence that these several lesions have distinct centres the controversy would be at an end. This is not the place to discuss such evidence in detail, but it may safely be said that there are no facts incompatible with the distinction of seats, while there are many that strongly support it[2]. Of course it is not likely that there will be any wide separation between the higher sensory centres and the centres for the corresponding memory-images, for example: both might even belong to the same convolution though possibly to different layers of its cortex. But unless there is some distinctness, then—as Prof. James seems to contend[3]—double-sided cortical lesions that make one stone-blind ought to destroy one's visual images. They might, of course, do this, and yet the hypothesis that impressions and images have distinct seats remain possible; for the more intimately two centres are connected the more liable they must be to joint inquiry. If

[1] "Ueber doppelseitige Hemianopsie centralen Ursprungs," *Arch. f. Psychiatrie*, xxiii. p. 356.

[2] Some 30 cases are tabulated and discussed in an excellent article by Prof. Friedrich Müller in *Archiv für Psychiatrie*, Bd. xxiv. pp. 856—917: Two of them are very interesting new cases of his own. An important work dealing with the whole subject by Vialet (*Les centres cérébraux de la vision et l'appareil nerveux visuel intra-cérébral*) has recently appeared, but I have not seen it. From a notice of it by Ziehen I gather that it supports the distinction of seats here maintained.

[3] *Principles of Psychology*, i. p. 51, note.

however there is no such concomitant variation in presentational and representational affections, the hypothesis of a single seat is seriously jeopardised. The facts certainly seem against any such concomitant variation. As I understand, there *are* cases in which sudden and complete blindness has ensued in consequence of cerebral haemorrhage and the like, "*optical memory*" *being still retained*[1]. And in less serious cases the affection, as has been said, is sometimes preponderantly sensory and we have cortical blindness, while at other times it is preponderantly ideational and we have psychical blindness. A concrete example or two will make this clearer. One of Müller's two patients was asked to describe a fork: she showed how big it was and stated that it had a wooden handle at one end and at the other two or three steel prongs. A fork was then and there put before her; but, though her eyesight was perfectly adequate for the purpose, she was unable to say what this fork was[2]. Again a patient of Wilbrand's bethought her one day to ascertain whether a certain large and gaily coloured vase, which she set much store by, was still safely in her possession. She went accordingly to the cabinet in which it was kept, but looked and looked in vain; yet in truth the vase was there before her all the time[3]. In the remarkable case so fully described by Lissauer, the patient—who could write freely of his own accord or from dictation *so long as he went straight on*, that is to say wrote mechanically, but could not afterwards read what he had written—was in a hopeless puzzle how to draw a bottle or a boot. He could draw all the parts but could not connect them together. Thus he knew that a boot has a heel; but having finished the leg and the sole, these were unrecognisable, so that to put the heel in its place was out of the question, and after several vain attempts the task was abandoned. It seems clear that in all these instances visual memory-images of fork, flower-vase, boot, etc. were present to the several individuals concerned. If now "the imagination-process differs from the sensation-process by its intensity rather than by its locality"[4] how was it that these pre-percepts did not fuse with the incoming sensations, how came assimilation to fail? It is meaningless to refer in these instances to "broken-down conduction," *except on the assumption of different localities*, because the sen-

[1] Cf. *Brain*, xi. p. 141 f.

[2] Müller, *l. c.* p. 866. Allowance must be made in these cases for the combined effect of diminished clearness and definition in vision and of want of intelligent interest or even of intellectual capability in the patients. Still the writers are for the most part fully alive to this.

[3] Wilbrand, *Die Seelenblindheit als Herderscheinung*, 1887, p. 59.

[4] James, *Psychology* ii. p. 72.

sations were likewise present and intact[1]. But, of course, there are instances of psychical blindness characterised by failure of association rather than by failure of assimilation. It is for these that Lissauer proposes the name of "associative soul-blindness" while the others he would call "apperceptive or perceptive soul-blindness." To take his own example—when, owing to some pathological process, the sight of a violin fails to revive memory-images of its tone, of the innervations and touches that fingering it would bring, of the sound and utterance of the word 'violin' and so on, then we have psychical blindness due "to disturbances of conduction between the optical and other centres." That *all* psychical blindness is of this latter kind is what Prof. James asserts but unhappily does not seriously attempt to prove. He seems content to regard the simpler form of apperceptive, or as we might call it, assimilative, soul-blindness as nothing but the result of "a psychological misapprehension" on the part of "all the medical authors." It is quite true that the psychology of medical writers is often "peculiar" and nowhere more so than in questions that turn on the distinction of sensation, perception and imagination. Very likely their psychology is the best for *their* purpose. At any rate, in this particular question as to the neural processes underlying representation, this distinction of seats, to which their facts drive them, seems to me to throw a flood of light on some of the obscurest problems of cognition.

But now Prof. James is certainly mistaken when he says that "all the medical authors speak of mental blindness as if it must consist in the loss of visual images from the memory"[2]. By the very instances to the contrary that he proceeds to cite, viz. the cases published by Wilbrand and Lissauer, he refutes himself. Disturbance or dislocation of the connexion between the seat of optical impressions and the seat of optical images will suffice to bring about failures in recognition. And in fact Wilbrand proposes to explain the defective recognition and orientation of his patient by a lesion in the left ideational centre of vision joined with the lesion in the right sensory centre, which her left-sided hemianopsia made evident; the two lesions involving more or less irregularity of connexion between the impressions, received only in the left occipital lobe, and the memory-images, extant only in the right. This lady remarked with some surprise that with her eyes shut everything seemed as before and that it was chiefly the actual sight of her surrounding that confused her; whence she shrewdly inferred "that

[1] I observe that Prof. James in referring to pre-perception allows himself to talk of "ideational centres." See ii. p. 439. And again i. p. 117.

[2] *Psychology*, i. p. 50.

we see rather with our brain than with our eyes." But even the memory-images that remained were more or less wrecked by "the psychic storms[1]" that had swept away others. Thus she could not for some time divest herself of the idea that the bedroom adjoining her sitting-room was really the street and this "preposterous notion," as she called it, made her fear she might be insane.

Persons affected with psychical blindness are usually old and nervously much shattered, so that information as to cases of recovery is neither copious nor very precise. But what information there is suggests a very close parallel with the gradual acquisition of visual percepts by persons congenitally blind who have been cured of cataract. The presence, however, of old memory-images more or less deranged and fragmentary gives rise in the psychically blind to a sense of utter strangeness and bewilderment from which those who have never seen before are comparatively free. But in both classes things seen one day are forgotten the next and are only after many repetitions immediately recognised. Thus Franz states that his patient did not know visitors again, unless they spoke, till he had seen them frequently. Similarly Wilbrand reports of the lady above mentioned that gradually the objects in her home lost their 'strange character,' the 'preposterous notion' about her bedroom being in the street vanished, and she could even find the way to his consulting room alone. All the facts of this kind—and they would be very impressive if there were space to marshal them duly—point to some process of growth. But now the sensory element (i) is there all the time, of what then can be growth, if not of (ii) the so-called representative element in perception? I propose to return to this growth presently[2].

"Associative soul-blindness," so far from being the only form, seems never to occur unless accompanied by the simpler, assimilative, form in some degree. The failure, so to say, is on both sides of the visual images, in their connexion with the sensory elements—Lissauer's cortical lesion—as well as in their associations with the memory-images of other senses—Lissauer's transcortical lesion. "It is in fact the momentary loss of our *non*-optical images," says Prof. James, as if setting the medical authors right, "which makes us mentally blind: thus I am mentally blind, if *seeing* a bell, I cannot recall its *sound or its*

[1] I borrow this phrase from an article on Forgetfulness (*Mind*, ii. p. 439) by R. Verdon, a most original thinker too early lost to psychology. One sentence of his that I have just noted might serve to point the moral of much that I have to urge in these articles: "In psychology the *effects* of events and the *records* of events have often become confused" (p. 440).

[2] Cf. below p. 523.

name." What truth there is in this remark had been already most clearly stated by Wilbrand, Freund, Lissauer and others. But it is not a truth that will enable us to identify the seats of impressions and images within the optical centre itself. The facts seem plainly to show that it is through the imperfection or difficulty in the reinstatement of the optical image that the associated non-optical images are momentarily lost. When a water-bottle is called a candlestick—there being no paraphasia—one can hardly say that only non-optical images are out of gear.

In the ample particulars Lissauer gives of his patient such derangement or defect of optical images is evident in many ways. Thus a simple picture being put before him, a number of objects were successively brought and he was asked each time whether the picture and the object were the same or not. When the right object came he confidently identified it with the picture; but beforehand would frequently hesitate, doubting, for example, whether the picture of a bottle had not some resemblance to the scissors or to a brush. "It cost him," says Lissauer, "distinctly more trouble to set aside a false combination of picture and object than it did to recognise the true one." Tested as to his power to recognise familiar objects directly, he was right, I find, 15 times out of a total of 104: still more frequently his answers might be called approximately right, as when, for instance, a clothes-brush was taken for a cat, a mirror for a light and a square for "a three-cornered thing." It was quite the exception for him to say that an object was downright strange to him: his usual attitude was that of one failing to recollect what he knows that he knows—if such an expression may be allowed. When by touch or hearing he had corrected his mistake he could recognise the same object again after a short interval by sight alone. At least he would know that he had been recently tried with it. Thus he mistook a coffee-mill for an inkpot till the handle was turned, whereupon he exclaimed: "Ah! a coffee-mill." After five trials with other objects the mill was reproduced and he at once remarked: "Have had that already once. Have quite forgotten what it is. Probably a hat machine." Thus his impressions of sight usually did not suffice to reinstate his optical memory-images correctly and completely; and these, when reinstated, waned again with a rapidity characteristic of primary memory images or of new images with the very young or the very old. When the sight impressions were reinforced by touch, movement, sound or naming, recognition was immediate and normal. But there seems little room to question that this recognition did involve some restitution of optical memory-imagery which till then was more or less obliterated, and not

merely the addition of *non*-optical images to an optical image already complete, as Prof. James seems to intend[1].

In view of the host of new facts of this kind that mental pathology has recently brought to light, it is no longer true to say—if indeed it ever was—that the doctrine of two seats is an *a priori* assumption. The strong probability in its favour is increased by the forced and feeble character of most of the arguments now adduced against it[2]. Great stress is commonly laid on the continuity of imagination and sensation as displayed especially in hallucination. But this is really no argument at all. Those who now maintain different seats for sensation and ideation on the ground of pathological facts such as aphasia, hypnotism, psychical blindness and the like, no more deny the continuity of the two than they would deny continuity between the trunk of a tree and its branches. It is fruitless and antiquated to address to them an argument which was only cogent against a psychologist such as Reid. For he, of course, made a merit of insisting that sensation and idea were entirely distinct in nature, and therefore had no necessary connexion, though always conjoined by the will of our Maker in "that mysterious chain which connects the material world with the intellectual." But Reid has done one good thing: he effectually disposed of the Humian doctrine that the idea is but a faint impression, the impression but a vivid idea. By Lotze[3] again it was still further demolished, though Dr Bain and Prof. James seem intent on retaining or resuscitating it.

The question how impressions give rise to ideas, ideas not being faint impressions, is confessedly a very troublesome one, especially for an atomistic psychology. As already said, it has in fact been thrust out of sight by this hypothesis of identical seats. In the preceding article I have tried to show that

[1] *l.c.* i. p. 50, ii. p. 73.

[2] Thus Stricker (*Vorlesungen über Pathologie*, Bd. iii. p. 636) concludes that memory and perception must necessarily depend on one and the same material substratum, have one and the same seat; because "in a place where as yet nothing has occurred, something new may *occur* but nothing can *recur*." Elsewhere (*Studien ü. das Bewusstsein*, p. 30) he remarks that it is absurd to suppose that a ganglion-cell A should remember what ganglion-cell B has felt! Much of the reasoning in Wundt's article, *Zur Frage der Localisation der Grosshirnfunctionen* (*Phil. Studien*, vi. pp. 1 ff.) seems as regards this point equally captious and perfunctory, excellent as it is in other respects. In the present state of our knowledge it is little better than sanctimonious pedantry to cavil with such phrases as "perception-cell," "memory-cell," and the like. They are at least compact and surely mislead nobody.

[3] Cf. Reid, *Intellectual Powers*, i. pp. 356 ff.; Lotze, *Microcosmus*, Eng. trans. i. pp. 204 ff.

"association of ideas,"—as properly and generally understood has, so to say, no status till this preliminary question is cleared up. At any rate laws of association cannot answer it; they either take it as answered, or become themselves confused in the attempt to answer it. Indeed the question is one that human psychology cannot effectively deal with: it is rather a matter for comparative psychology or psychogeny, and involves more or less probable inferences from bodily structure to mental function. Lehmann's well-meant endeavour to overturn Höffding's position by laboratory experiments on human beings, and in particular his dictum that what is sound method in geology must be the only right method in psychology, is one more instance of the disregard of psychological principles that is apt to beset even good experimenters. "Because Lyell in his *Principles of Geology* was right in regarding the physical agencies that now shape the earth's surface as the agencies that shaped it in the remote past, I, Lehmann, shall be right in regarding the mental process of a Danish student deciding whether he recognises a certain smell or not, as identical with the mental process whereby anywhere and everywhere impressions give rise to ideas." This is the argument[1]. By parity of reasoning one ought to maintain that the amoeba has young and suckles them, or that the oyster sends its spat to a kindergarten.

What we call our percept of a rose, an orange or a bell, is doubtless a very complex presentation: the inquisitive experimenting of a child with its toys shows us the formation of such percepts in process. But have the lower animals any such percepts? The percepts of a fish, for example, differ so widely from ours that only trained and cautious observers can furnish even an approximately true "eject" of them. A fish can feel, see, smell, and even hear and taste; but it would be a grievous mistake to suppose that it has any percepts to which all these senses contribute as they contribute to our percept of an orange or a rose-drop. Taking voluntary movement as the index of psychical life it would seem that the fish's movements are instigated and guided by its senses separately and not collectively. Thus a dog-fish according to Steiner seeks its food exclusively by scent; so that, when its olfactory bulbs are severed, it ceases to feed spontaneously. The same thing happens if it is deprived of its fore-brain, in which the olfactory lobes end. The carp on the other hand appears to seek its food exclusively by sight, and continues to do so just as well when the fore-brain is removed, the mid-brain, whence the optic nerves

[1] Wundt's *Philosophische Studien*, vii. pp. 169 ff.

spring, seeming to be the chief seat of what intelligence it has[1]. Again Bateson observes:—"There can be no doubt that soles also perceive objects approaching them, for they bury themselves if a stroke at them is made with a landing-net; yet they have no recognition of a worm hanging by a thread immediately over their heads, and will not take it even if it touch them, but continue to feel for it aimlessly on the bottom of the tank, being aware of its presence by the sense of smell. Soles, eels, and rocklings, moreover, have a clear appreciation of light and darkness, being always buried or hidden by day (unless food is thrown in), but swimming freely about the tank like other fish at night. When thus swimming at large they bury or hide themselves if a light be flashed upon them. Congers and loaches have some appreciation of moving objects, and occasionally snap at them, but their [sight] perceptions are extremely vague..."[2]. These observations—and they might easily be multiplied—seem then to warrant the inference that the percepts of a fish, in the main at any rate, are simple and not complex: smell *e.g.* exclusively guiding the sole or dog-fish to food, and sight mainly subserving concealment. So far as this is true there would be in the experience of these fishes no object such that its sight would recall its smell, or *vice versa;* generally, that is to say, no percept of the form $A + B$. But we cannot even say that its simple percepts are of the form A or B, if by the single letters we mean distinct individuals, members of a class. Yet they *are* percepts and not mere sensory impressions, in so far as they are assimilated, or cognised. Of this we have plain proof in the motor response appropriate to them that is seen to follow. When there is no reaction, we may, if we like, infer sensation but not perception. Thus Bateson remarks that pollack, fishes with excellent sight "take no notice of a *straight* wire held up and waved outside the tank, but if the wire be *bent* into a sinuous curve like the body of a swimming worm, they will often dash at the glass in the attempt to seize it"[3]. When a sense-impression sets up movements that are plainly unfit we have no choice but to affirm sensation, but it must be unassimilated sensation: the rush of a moth into the candle is perhaps a suitable instance.

The difficulty is, where perception is certainly present, to know how little is perceived; and it is here, as already said, that those who would argue from the Danish student to the dog-fish or the limpet are foredoomed to blunder. When the

[1] Cf. Steiner, *Die Functionen des Centralnervensystems und ihre Phylogenese*, 2te Abtheilung, pp. 50, 126; 19 f., 101.

[2] "The Sense-organs and Perceptions of Fishes," paper in the *Journal of the Marine Biological Association*, N. S. i. p. 239.

[3] *l. c.* p. 238.

casual spectator at an aquarium sees dead sprats or shrimps thrown into a tank he is apt to assume that the fish who eat them recognise, as he does, a certain smell, taste, form, colour, consistency and so forth. But presently he may learn that the scent-led feeders among them, such as the rockling, circle round in narrowing spirals and finally gulp a stone on which dead sprat has been smeared; while sight-led feeders like the pollack will dart straight at and swallow the twisted strip of bright metal which anglers call a "spoon." One would think that with time and adequate opportunities they might learn that all is not fish that glitters or has a fish-like smell, and so pause for some saving differentia that will exclude fraudulent imitations. To "associate" the glitter with the smell or the smell with the glitter would be a great step towards this. A very few instances would probably suffice to furnish a cat or an otter with some such minimum of sagacity. But a fish seems scarcely ever to grow wise. Yet the rockling *can* see, and the pouting can smell, its food[1]. Why then is it that they fail to associate important sensations that "recur together or in close succession" for them as much as for the mammal? Primarily, as already suggested, because the fish fails to unite them into a complex percept of a single object; and failing in this, he has no "memory-images" of these constituent sensations themselves and no means of acquiring them.

In explication of this view let us compare for a moment the brains of these two classes of animals. Both have the fore-brain and mid-brain, in which the senses of smell and sight are primarily localised; but the mammal alone has developed that important enlargement of the fore-brain commonly called the brain-mantle or cerebral hemispheres. By this acquisition the mammal secures not only complete centralisation, but as a further consequence of this, the capacity to initiate more complicated actions, and almost certainly too, the capacity to receive sensory impressions of a more highly differentiated type. Yet again, these more elaborated sensations do not in the mammal occasion those more complicated reactions on any fixed or uniform plan. Finally, this development and all that it involves is both phylogenetically and ontogenetically a gradual and in the main an incomplete process. It is, of course, upon these grounds that biologists regard the cerebral cortex as the seat of memory, intellect and will. What psychologists of all schools are too prone to ignore is the psychological interpretation of the gradual development of this cortex in the

[1] Cf. Bateson, *l. c.* pp. 239, 247.

animal kingdom, and its gradual growth in the individual human being[1].

To be more detailed. Supposing the eyes of the fish (or even the rabbit) were as sense organs exactly like the human eye, we could not assume that the visual sensations in each were the same. The anterior *corpora quadrigemina*, the sole centre for vision in the fish and the main centre for vision in the rabbit, become, as we advance towards men, more and more exclusively centres for optic reflexes merely. On the other hand, *pari passu* with this advance as the mid-brain sinks, the thalamus rises, in importance, the *corpus geniculatum externum* (and a portion of the *pulvinar*) becoming more and more intimately dependent on the supreme visual centre in the occipital lobe. Moreover these parts of the thalamus are said to be without direct motor connexions; so that Monakow, the ablest investigator in this particular department, has come to the conclusion that the entire function of this new primary optical centre is "to collect, arrange and adapt the excitations of the retina for reception by the higher centre in the occipital cortex"[2]. The visual sensations (or perceptions) of the higher mammals, most of all those of man, differ then from those of the fish (1) in partial elaboration by a subordinate centre, which is exclusively sensory, and (2) in the absence of equally definite and restricted motor connexions. Apropos of the latter difference a caution seems called for. Because the mid-brain is in man the seat of optic reflexes and because the sight of food or lure also depends on the mid-brain in the fish, it is held that the fatal, indiscriminating rush of the fish is also a mere reflex, and not a voluntary, act[3]. Such an inference, though certainly plausible, is, I cannot but think, in the main false. The fish too has optical reflexes as in swimming aside to avoid a stone. The stone is seen but he is not aware of it as he is aware of his mate or his prey; and it is seen without feeling, whereas his

[1] Mr Spencer and G. H. Lewes are brilliant exceptions. Romanes, who essayed to follow their lead, would have had more success if he had known some psychology and paid more attention to physiology and less to anecdotes.

[2] C. von Monakow: "Experimentelle u. pathologisch-anatomische Untersuchungen über die optischen Centren u. Bahnen," *Archiv f. Psychiatrie*, xxiv. pp. 258 f. Cf. also Reinhard, "Zur Frage der Hirnlocalisation," ib. xviii. pp. 482 f.; Edinger, *Vorlesungen über den Bau der nervösen Centralorgane der Menschen u. der Thiere*, 4te Aufl. pp. 112 ff. Foster, *Textbook of Physiology*, 5th ed. § 673.

[3] In avoiding and exposing the opposite extreme of too close approximation to deliberative volition, Prof. James seems to come very near to this view. Cf. *Principles*, ii. p. 384.

whole mental attitude on sighting his partner or his food is one of marked excitement and interest. Moreover some human actions—that of a hungry man finding a loaf, for example—are quite as prompt and void of all signs of deliberation and yet are assuredly not reflexes. Voluntary (or interested) attention belongs to the fishes' perceptions—or apperceptions, as some would say—as truly as it belongs to ours; though with the fish it may never pass beyond the rudimentary stage. If such active element were entirely wanting, it is hard to see how assimilation could have any psychological meaning[1]. The essential point, then, is not that the fish's volitions are really reflexes; it is that, in the course of neural (and mental) development, the mid-brain and the basal ganglia generally surrender their higher functions as fast as the cerebral hemispheres are fitted to undertake and to develope them.

But when we advance beyond "sensori-motor" psychoses that simulate reflexes, what account can be given of assimilation? In other words, if a fitting motor response is still to be the sign of assimilation, what new form does the active element assume when the sensory impression is described as without definite and restricted motor connexion? A precise answer to this question is still to be found, but for our present purpose a general indication of this activity will suffice. It is of course attention; but attention of that spontaneous, selective and concentrated form to which the lower vertebrates never attain, and which is first clearly shown in the inquisitive curiosity observable in the child and the monkey, or perhaps in the kitten and the lamb. How far it consists in the arrest of the diffused movements to which unrestrained excitations lead, or in the inhibition of competing presentations generally; how far it involves reinforcement by definite adjustments of sensory organs; how far it presupposes a supreme "organ of apperception" of its own—are questions we can quite well leave aside. We may at least be sure that such intellective activity and interest entail motor responses of some sort and in this sense would constitute with its object a complete psychosis, though no external indication of movement were forthcoming. But it is worthy of remark that in the gestures and vocal utterances to which this interest leads, we have not only outward signs of true activity but probably also one chief source of language, the most potent of all instruments in the elaboration of "free ideas." Three points at least are clear and for the present inquiry of the first importance:—(1) This spontaneous interest in impressions, to which there is no organised reaction, is most conspicuous where cerebral develop-

[1] Cf. former article, p. 360 f.

ment is highest; and it is most intense while cerebral growth is at its maximum. (2) Steadily, as this growth proceeds, will the precision and definiteness of assimilation or perceptive cognition be found to increase. (3) Concomitantly with increased differentiation on the cognitive side there is a parallel advance from voluntary movements that are vague and diffusive to such as are performed with agility and exactness. In fact for our present inquiry these two processes may be regarded as one and the same.

Our knowledge of the brain-changes that take place during this growth is far from complete. Still enough, I think, is ascertained to show that they are distinct from, and on the whole preliminary to, those cerebral changes that specially accompany the association of ideas. It is by this time pretty clearly made out that the latter has its first physical basis in the *fibrae propriae* or "association fibres" that begin in one convolution and end in another, and are therefore confined to the cortex[1]. But the growth with which we are for the moment concerned is that of the projection-fibres of the *corona radiata* connecting the cerebral cortex with the lower centres, and indirectly, through them, with the periphery. Now the patient investigations of Flechsig have shown that these fibres at the time of birth are still without the white medullary sheath, the presence of which may be taken as evidence of functional efficiency; whereas the tegmental fibres, which minister to subcortical reflexes, have acquired their sheaths in the early months of foetal life; while the fibres of the spinal cord and oblongata become perfect even earlier still. Not until several months after birth do the radiating fibres proceeding to the cortex appear as white as they remain through life. Step by step as these fibres take possession of the cortex, the medullary substance begins to spread along the lines of the association-fibres lying within it. "This order of development," says Meynert, "marks the functional growth of the cortex; for the functions of the association-fibres are necessarily secondary to the stimuli from the outer world, conveyed to the cortex by the radiating nerve-tracts from the brain-axis"[2]. This sort of ontogenetic evidence of the gradual maturing of the cerebral projection-system and of its priority in development to the association-tracts, ceases to be available

[1] The temporal lobes alone are connected in this way with all other parts of the cortex, a fact which is the anatomical counterpart of the association of words and things. *Per contra* the so-called "rhinencephalon" among primates is correspondingly contracted, in keeping with the diminished intellectual value of the sense of smell.

[2] Meynert, *Psychiatry*, translated by B. Sachs, p. 259.

within the first year, owing to the impossibility of observing local changes, once the whole corona radiata has assumed a uniform tint. But on the other hand, when we consider how much the infant mind has accomplished in the way of sensory cognition and purposive movement in that time, even this evidence becomes amply sufficient to establish what I have called the functional view of assimilation and to discountenance the attempt to explain such cognition atomically or chemically by the fusion of an associational series of the form $a_1+a_2+\ldots+a_n$[1]. The notion that the human infant is furnished at birth with an apparatus of "centripetal" and "centrifugal" nerves passing continuously to and fro between their peripheral endings and the hemispheres like so many telegraph wires, the first "nerve current" producing an impression to be afterwards reproduced as an idea—is as hopelessly at variance with physiology as it is false psychologically.

To say nothing of the fact that neurologists are now agreed that the so-called nerve-fibre is structurally a part of its nerve-cell and that nerve-cells are never united together; leaving out of account too the intervention of lower centres, in which excitations may in various ways be profoundly modified—we have only to examine a section of the cerebral cortex itself and to reflect that this too is undergoing structural differentiation for years after birth, to lose all conceit with the notion that life begins at once with definite impressions which straightway leave copies behind them and become familiar by mere cumulation of these. Of this differentiation within the cortex as shown by sections of the mature brain, Edinger remarks that it displays "a wealth of possibilities of combination between prolongations from cells in every quarter, such as the wildest fancy of speculative psychologists would scarcely dare even to dream of." In view of the bald and meagre analysis of cognition that has contented us for so long, this remark might well seem ironical. Be that as it may, we have at present only to take note that this cortical differentiation is found to be in rapid progress during the first three years of infant life, after which time the microscope (for reasons mentioned above) ceases to detect further signs of the development of medullated sheaths[2]. Edinger, in common with neurologists generally, proposes to refer this development simply to the acquisition of "memory-images." But it is just now our chief concern

[1] Cf. former article, pp. 353 ff. and especially p. 357.

[2] According to Vulpius, "Ueber die Entwicklung u. Ausbreitung der Tangentialfasern," *Arch. f. Psychiatrie*, xxiii. pp. 775 ff., it would appear that the development of these fibres in some convolutions is still progressing as late as the 17th year.

to ascertain, if possible, how it is related to the preliminary process of assimilation.

We cannot do better, on the whole, than begin with movement, leaving aside as far as possible the moot questions that beset the so-called "feelings of innervation." It is at least allowed that our motor presentations answer, not to the contractions of single muscles,—these being effected directly by centres in the spinal cord—but to the coordination of a number of such movements—this co-ordination again being carried out by a subcortical centre and only initiated from the cortex. In the shape of reflexes there are numberless such coordinated movements perfect from the time of birth. These earlier, more "organized" movements Meynert proposes to call *primary*, and from them he distinguishes voluntary or "conscious" movement as *secondary*. The theory which he has ably maintained—and which in the main is widely, though not universally, accepted—is "that *centripetal* tracts connecting the cortex with subcortical centres, such as the thalamus, constitute the anatomical link in the chain producing secondary movements"; and "that the sensations, which these reflex centres, in their capacity as subcortical sensory centres for motor sensations, transmit to the cortex," constitute our motor presentations (*Bewegungsvorstellungen*)[1]. Now it is the gradual acquisition of these motor presentations, or in other words the gradual shaping of the cortical motor centres, that answers to what is here called motor assimilation or facility. Anew to impress the fact that this process *is* gradual, the following statement of Meynert's may be quoted :—"He [Soltmann] has found that those regions of the cortex which if stimulated in the adult brain produce muscular movements are in newly-born animals unexcitable and 'not yet motor' in function. But as the reflex movements are perfect in these very young animals from the time of birth, we are doubly justified in believing that the reflex movements constitute the *primary* form of movements and that centres for the innervation of the *secondary* forms are established later, and are derived from the sensations of innervation connected with the former class of movements"[2]. Further it has been remarked that those abnormal discharges of the cortex of an epileptiform character, which in adults are restricted to one or more definite movements, appear in the young as diffused and general convulsions. Such a transition from the diffused to the definite cannot be described as an association of a series of identicals; or indeed as association of any sort. On the physiological side

[1] Meynert, *l. c.* pp. 155 ff.: Cf. also H. Sachs, *Bau und Thätigkeit des Grosshirns*, 1893, pp. 122 ff. and 135 f.

[2] *l. c.* p. 166.

it is a case of structure differentiated by function, the result at the end of the process differing from the state at the beginning in the same manner as the chick differs from the egg. One psychological counterpart of this process is assimilation. New instances of the process, no doubt, may occur—with diminishing frequency and purity—throughout life; but it is a process mainly characteristic of life's beginning.

What is true of motor assimilation holds also of sensory assimilation or apperception[1]; though the evidence, if we treat the two forms independently, is not so clear. Anatomically the facts are the same, but we cannot ascertain by experiments such as Soltmann's, or observe pathologically, precisely how a cortical sensory presentation—if the phrase may be allowed—is related to subcortical, "more organised" sensations, or whatever we may call them. But ought we, in fact, to distinguish primary and secondary sensations on grounds similar to those on which Meynert distinguishes primary and secondary movements? Waiving the question as to the propriety of the word "sensation" in this connexion, there is, I think, ample justification for a parallel distinction. To the complex structural arrangements in primary sensory centres may reasonably be referred the so-called instinctive percepts of the lower animals, of which we have ample evidence[2]. Even when we hesitate to identify these with such complex percepts as human beings would have in like circumstances[3], still as they involve elements of form, position and the like, they must be accounted in some sort perceptual or objective. What the subcortical centres conjoin, the cortical centres—if we follow the analogy of movement—are not likely, in the first instance[4], to disjoin. But if so, the

[1] Benno Erdmann contends that Apperception in Herbart's sense should be restored to take the place of Assimilation. Cf. "Zur Theorie der Apperception," *Vierteljahrsschr. f. wissenschaftl. Philosophie*, x. p. 316. It is no doubt a useful variant sometimes.

[2] Cf. former article, p. 356. [3] Cf. above p. 518.

[4] An interesting reflexion suggests itself here on which we may dwell for a moment. We often consciously analyse what we have never as consciously synthesised and sometimes we can even actually separate elements that we never normally experience apart. There are many tricks of movement on which some people pride themselves that are of this sort. Helmholtz's resolution of vowel-sounds and of musical notes is another instance on the perceptive side. A still better instance perhaps, in that it incidentally confirms the account of perception here given, is the improvement of local discrimination by practice. Again in a *complex* percept, or intuition, such as that of a rose seen or smelt, a familiar voice heard and the like, the ordinary man can be brought to verify the psychological resolution of such a cognition into presentative and representative elements. But by no means can we come by the experience, either presentatively or representatively, of a mere sensation. The analysis then by which the notion of a

sensory presentations or "secondary sensations," which arise when secondary centres are differentiated, will be what we ordinarily call percepts and not what we ordinarily call sensations. In fact the pure sensation, so often regarded as the ultimate element of cognition, will be as much beyond the range of our direct experience as the elementary muscular movement is beyond the range of our direct volition. In the complete or apperceived presentation as in the complete or overt action, we must suppose, then, that the subcortical centres contribute whatever constitutes reality or actuality, of which intensity is one, but by no means the sole, characteristic[1]. Interested or concentrated attention too is of the essence of the case, and also progressive definiteness in the presentations themselves. But this psychical process, perfected *pari passu* with the differentiation of the highest projection system and its cortical endings, will not be a presentative-representation process, as associationists maintain. So far from later sensations reproducing memory-images of earlier ones, we should have no basis for reproduction till after the apperception level is reached, and then the memory-images reproduced would be images of earlier percepts rather than of earlier sensations.

This earliest and purest assimilation thus briefly indicated, agrees, I believe, in the main with the theory of simple recognition which Höffding has discussed in such a fresh and lucid manner[2]. What Höffding has specially called the *Bekanntheitsqualität* answers to the more subjective side of the process. This I ventured to suggest might be symbolised as A^{γ}, B^{γ} &c., inasmuch as this quality is no part of the content of the presentation recognised and is essentially the same for one presentation (A) as for another (B). It has been only incidentally referred to here, as we were mainly concerned with the "tied" or implicit idea symbolised by the small letter in Höffding's bracket ($\overset{a}{A}$). But it is important to note that both the γ and even this a come into existence through subject activity and interest and are not produced solely by the primary impression or A. No doubt A is regarded as active in reviving or reproducing a, i.e. on the associationist view; but here it is

sensation has been reached is of a different order: to hypostatise such an abstract into a psychical atom or unit is apt to mislead us in any case; and in my opinion it has grievously misled psychologists of what I have ventured to call the presentationist school.

[1] I would fain deal with this very important point more fully; but shall hope to return to it in a separate article.

[2] I may perhaps be allowed to refer to my own summary statements, art. Psychology, *Encyc. Brit.* p. 52.

rather a that is active in apperceiving and appropriating A[1]. There are scores of impressions continually repeated that are yet never assimilated, because they are never interesting and therefore, so to say, never focussed. Reproduction like association presupposes assimilation and not *vice versâ*. Of course, strictly speaking, till we get beyond assimilation the distinction of A and a is mainly an analytical distinction. The "tied idea" has no free existence and in actual apperception has no independent existence. Again, in view of the fact that free ideas are not mere faint impressions, our symbolism would be more perfect if the use of large and small letters from the same alphabet were avoided. Reality and ideality are different in kind and not merely in degree.

But leaving these several points without further elaboration, we have to ask how free ideas, which alone are truly ideas—how memory-images properly so called—arise from such tied or implicit ideas. There is little or nothing in the process of assimilation taken by itself[2], however far we suppose it perfected, to lead to ideation or to memory. As already said[3], human beings are almost devoid of true imagery of tastes and smells, although their recognition of these is often extremely accurate. The smell of a rose will usually at once reinstate images of its form and colour, though the converse scarcely holds at all. We must then look beyond assimilation for an explanation of free ideas; and we find it at once in association by contiguity. Tied ideas associated as such[4] may set each other free from dependence on the projection-systems. To be associated it is not enough that two impressions shall occur together or in immediate succession. B may follow upon A as physical event till doomsday, but it is only as A and B are apperceived as in some sort one and connected, that $(\mathring{A})$ will hereafter reproduce b. From this point of view it is that we

[1] In insisting on this point as vital I fear I go further than Höffding would approve. On the one hand he lays, as I think, dangerous stress on the *physiological* effects of mere repetition in producing re-arrangements of molecules &c.; and on the other he censures Herbart's use of apperception as a confusion of the logical with the psychological! cf. *Ueber Wiederkennen u. s. w.; Vierteljahrsschr. f. wissenschaftl. Philosophie*, xiii. pp. 432 f., 452 f.

[2] The primary memory-image is merely evidence of the transition; also anything deserving the name of "spontaneous recurrence" of *ideas* as distinct from percepts is questionable.

[3] Cf. former article, p. 361.

[4] I venture to take it as proved that association in its neural aspect is *exclusively* a cortical function. Again psychologically I can attach no meaning to an association between sensations or between a sensation and an idea.

realise the psychological significance of the supreme centralisation and efficiency of the cerebral hemispheres, previously referred to as lacking in the fish and lower vertebrates[1]. The occasion for such independent reproduction—at any rate till the association lapses into mere complication—is, in general, the presentation of A in the absence of B. Probably several instances of this conscious integration of A and B will usually be required before the association becomes fairly established, in other words before the presence of A leads to the preperception or to the expectation of B, and the like. As in the earlier process of assimilation, the projection-system and its cortical terminations take time to grow, so here with the association system: and here as there, structure is perfected by function. No doubt in actual fact the two advance together, the more fundamental process taking the lead. But this is familiar ground, details and illustrations would therefore be superfluous. On the other hand we still need to ascertain how far assimilation continues operative as a distinct process after the emergence of free ideas. The prevailing expositions which ignore or minimise assimilation as a fundamental preliminary to association are still further from acknowledging any interaction of the two processes in the more advanced forms of ideation[2].

The combination of assimilation and association just described answers broadly to the level of mental life, below which we supposed the fish to remain, and to which we supposed the inferior mammals to attain. Though assimilation at this level is the result primarily of function and not of structure, is acquired and not innate, yet the several stages of the process, the events referred to as p_1, p_2, p_3[3] leave no psychical images or records, a_1, a_2, a_3, answering to them. So far our free idea is a, not an a_1 or a_2 or a_3, whether by these indices we propose to mark time-order, as Dr Bain does; or, as Höffding, to indicate specific differentiae of secondary import[4]. It will be convenient to employ other indices for the latter, thus a', a'', a''', &c. How now do we advance from this primitive a to true memory-images (a_1, a_2) or to members of a class (a', a'')? As to the first—the formation of a memory-register—this plainly depends primarily upon contiguous association: both the accessories that give individuality to the event and the antecedents and consequents that determine its chronological position will be connected with it by this means. But the several members of such a series

[1] Cf. above, p. 518.

[2] Prof. Sully's *Human Mind* is an exception. The relation of both processes is there discussed with much care. Cf. vol. i. ch. vii.

[3] Former article, vol. ii. p. 348.

[4] *l. c.* xiv. p. 52.

must consist of something besides supers and accessories. Circumstances and collaterals imply a principal and a centre. In our daily experience we may note that vague or general recognition does not lead to reminiscence. I may recognise a stranger passing me as a German and no more; but observing a scar on his forehead, I am almost sure to remember a student's duel where I saw such a wound given. If a_1 be $a+l+m$ and a_2 be $a+p+q$, a being in these instances the chief presentation, this at least, if not its annexes, will require more specialisation than we have yet accounted for. And in point of fact, we find in children and in the higher animals many signs of free ideas and associations among these before we have evidence of true memory. But such free ideas are vague and meagre. It is from them however that we advance to the more specialised forms, a', a'', &c. In these, which in general seem presupposed in what I have just called the memory-register, assimilation, not association, appears again to take the lead. The very young child is said to call all men "Father": in dementia or delirium, the patient,—to borrow an illustration from Hughlings Jackson—"ceasing to recognise his nurse as a nurse, takes her to be his wife"[1]. In the one case we have the differentiation of a into a', a'', &c., not yet evolved; in the other we have it dissolved again. The case of Groenouw's sculptor, who could draw a sofa and recognise a statue of Mercury but could not draw his own sofa or recognise the particular statue he had himself modelled, illustrates this regression; and there are familiar instances in plenty to be found in the records of aphasia and cognate mental affections. Such cases indeed have suggested to Dr Hughlings Jackson the distinction of inferior and superior perception. This vague inferior image (a) that confuses father and all other men, wife and nurse, seems to be the root or stem whence the more specific images (a', a'') diverge as it were by proliferation: it is the psychological generality that precedes distinctions, not the logical generality that can only follow them. This later, logical (or epistemological) form, I have suggested[2], might be symbolised as a^ϵ: it is "abstracted" from the free ideas a', a'', etc. into which the psychological a or A^γ has ramified. Here it is that language comes upon the scene; and if we had space to inquire we might find that as varying repetitions set free the psychological a, language sets free the distinctly generic image implicated in the several members a', a'', a'''..., so bringing to light the one

[1] *The Croonian Lectures on Evolution and Dissolution of the Nervous System*, 1884, Reprint, from *Brit. Med. Il.* p. 8. It is deeply to be regretted that these masterly lectures are so little known to psychologists and that they exist only in such an inaccessible form.

[2] Former article, p. 358.

in the many, and at the same time rendering the many distinct[1]. In both these processes, of course, contiguous association is essentially concerned. And no doubt it is very frequently instrumental in the specialisation of our *a* itself, particularly when this exceeds the limits of a single sense. But in the child learning to distinguish letters from numerals or one letter from another, and generally in what is called "training the senses," differentiation and assimilation make one process of growth. The process is not one of construction, comparable to the manufacture of a watch: it is much more akin to the steady increase in clearness and distinctness of a landscape as morning breaks. At first sight the child may still confuse *M* with *W*, the cowslip with the primrose and the cat with the rabbit: only on closer scrutiny do the differences "emerge." When they do, the percept in question becomes more distinct and so more complex: but so far there is no association.

The fact is, great as are the advances that psychology owes to the doctrine of association, the time has come to question its finality and to circumscribe its range. The restriction here contended for is one which the earlier writers on association fully allowed: association is wholly confined to ideas that to begin with are distinct and that to the end are separable[2]. The process by which ideas arise from impressions cannot then be explained by association. And for long no such explanation was attempted, but the practice of regarding ideas as traces, copies or residues of sensations prepared the way for such an attempt. In perception accordingly an impression *A* was said to revive the residue of its predecessors and to fuse with them, and this wholly mythical process was thereupon styled "association by similarity." But now what we perceive we are also said to know or recognise. How is this aspect of perception to be explained? Recognition consists in noting the "undistinguishable resemblance" between *A* and *a*, is the answer of some. How this is possible if *A* and *a* never are in consciousness as two is not explained. Others, more wary and alive to the absurdity of identification without difference, reply that recognition depends on collaterals associated by contiguity. But they in turn are silenced by the inquiry how the passage is made from the present *A* to the said collaterals with which it has never been contiguous. The truth is Recognition has become an ambiguous word: it means simple cognition, and

[1] Cf. former article, pp. 352 f.

[2] Cf. Hume, *Treatise*, pt. 1, § 4, Green and Grose's edition, vol. i. pp. 319 ff.

it means what is literally re-cognition. What is properly cognition has, I suspect, been miscalled from a confusion of the earlier process, in which association and reproduction are mistakenly assumed, with the later process in which they are certainly operative. This, which is strictly re-cognition (or mediate recognition, as Höffding would call it) and depends on contiguous association, presupposes cognition (Höffding's immediate recognition). The association by perfect similarity or assimilation, as Mr Spencer actually terms it, which is tantamount to cognition and on which contiguous association is shown to depend, is not really association at all.

Looking at this assimilative process with an open mind, we are led by a closer study of mental and neural development to replace the mythical skein of *a*'s innumerable, to which every new *A* is supposed to devise a ghostly residuum, by the far more apposite conception of a function that is gradually acquired. We have not to do with the retentiveness of a waxen tablet but with the plasticity of a growing structure. The inchoate beginning so far from being reproduced is obliterated and superseded by the supervening detail, and even when the acquisition is complete, the perfect identity of the new with the old forbids us to talk of memory or ideas. The mere sense of familiarity or facility is then, not strictly a re-cognition, or identification of present impression and past image, but a subjective state partly active, partly emotional. But if perception is thus a prior process to ideation and possible without it, how come ideas to arise? I am much more conscious of the importance of asking this question than confident of seeing how to answer it. Fully to grapple with it it would first be needful to ascertain carefully the special characteristics of percepts and ideas respectively. For this inquiry I have left myself no space here[1]. That ideation and true memory are distinctly higher functions continuous with but superposed upon the lower functions of perception and movement seems to me the conclusion to which we are led up by three independent lines of evidence:—(1) the facts of mental pathology above referred to; (2) the results of physiological experiment such as those of Munk and still more those of Goltz; and (3) the observations of comparative psychology so far as it at present exists. The psychology that has till recently prevailed has been prevented from even asking such a question by the several confusions I have here endeavoured to bring home to it, viz. that of retentiveness (so-called organic memory) and reminiscence, that of assimilation and association, that of "sensory trace" and idea.

[1] I have referred to it briefly in the art. Psychology, *Encyc. Brit.* pp. 57 ff.

VI. DISCUSSIONS.

PLEASURE—PAIN.

A WRITER should welcome skilful criticism even if he does not agree that it is valid, and I should not think it desirable to reply to Prof. Sully's review of my book "Pain, Pleasure and Aesthetics" did I not think that certain of his objections are due to a misconception of my views. If these views are worthy of consideration at all, it is certainly worth while to make their meaning clear, especially where it is probable that the obscurity is due to my own failure to emphasize sufficiently some specially important points.

Prof. Sully says on p. 404, "When, however, Mr Marshall goes on with equal elaboration of argument to oppose the doctrine that pleasure and pain fall under the head of Emotion, he strikes one as taking unnecessary pains. To say as Spencer or Bouillier that Emotions are made up of elementary pleasures and pains is not to say that these are to be classed with Emotions."

Perhaps not, but my argument was aimed not at these particular writers, for Mr Spencer's view especially is not at all clear to me, but at the general doctrine that Pleasure-Pain and the Emotions are to be classed together. Perhaps it might be claimed that this doctrine has never been distinctly stated and clearly defended by any master; indeed in its statement and defence its weakness at once becomes apparent: but the doctrine is surely *implied* in the writings of many thinkers. Prof. Bain has been teaching us for years that we must look for his fullest treatment of Pleasure and Pain in his volume on the "Emotions and Will": and under the main heading "*The Emotions*" he gives us various sections, among them one concerning "The Emotional Characters of Feeling"—under which he treats "The Physical Side and the Mental Side," "The Physical Side of Pleasure," "The Physical Side of Pain," "Feeling as Pleasure," "Feeling as Pain," "Feeling as Indifference". Now surely all this implies "that pleasure and pain fall under the head of Emotion" and I can scarcely see how I can be held to be taking "*unnecessary pains*" when I undertake to oppose this doctrine, if I disbelieve in it.

Prof. Sully himself in his book "The Human Mind" (see his table of contents), devotes Chapter XIII. to the consideration of "Feeling: Pleasure and Pain," and Chapter XIV. to "Feeling: *its Varieties and Development*": under which we find Section A devoted to "Sense Feelings, and treating of Pleasures and Pains

of taste, smell, touch, hearing, etc., etc.," and *Section B given to the discussion of the "Emotions."* This surely seems to imply a view that the Emotions can be classified under Pleasure-Pain phenomena.

Prof. Sully says (p. 406) that I take no account of "an Emotion so simple and universal as the disappointment of expectation." This indicates I fear that he did not read my Appendix I. to Chapter V. concerning "Pains of Restriction"; which I regret exceedingly, as I had hoped to receive some criticism from him on my treatment of the difficult problems there discussed. I do not think that Disappointment is to be looked upon as an Emotion; although it is an important algedonic state, and is usually coupled with instinctive reactions, the mental side of which, i.e., their "instinct feelings," under the proper conditions of fixity, give us what we term an Emotion.

Prof. Sully in the whole series of remarks in the first half of p. 406 seems to have overlooked the fact that I hold that the "Art Impulse" is a *blind* impulse, carrying with it no notion of the end to which it tends; just as all Emotions arise without thought as to their function in relation to the development of individual or race. I have mentioned this in many places. See pp. 99, 100, 105, 164.

I do not take as much interest relatively in the acknowledgedly vague physiological theory as my critics in general seem to think I do; in fact they reflect in most cases their own special interest which leads them away from introspection and in the direction of neurological consideration. But it is perhaps worth while to note, in reference to what Prof. Sully says on p. 407, that, under the theory, fatigue pain may arise "by persisting in a moderate amount of stimulation," provided however that this stimulation calls for more reaction than would be possible as the resultant of normal nutritive absorption, leaving out of account the surplus stored force used up gradually (and with pleasure) at the beginning of such "persisting stimulation." In the case of great increase of stimulation the surplus stored force, if there be any, is at once used up, and we very soon obtain the conditions which arise only after a considerable time where the slightly hypernormal but persistent stimulus occurs.

As to pleasure, under the theory, "the increase of stimulus, the state of the organ being assumed to remain unchanged, will within certain limits cause greater pleasure by exciting greater activity" and this because the increase of stimulus will call forth into action more of the surplus force which is stored up. "Surely habitual actions of a moderate amount have their modest quantum of pleasure": yes surely; but, if I am right, only if they occur after the organs involved have been rested so that the moderate stimuli draw into action *some* surplus stored energy.

Prof. Sully on p. 408 evidently fails to comprehend my view and I cannot help thinking that this is to some extent because he conceives of pleasures and pains as themselves revivable. I hold

that the pleasure (or the pain) is a quality of the mental "content": which latter is revivable and which revival may be pleasant (or painful) or it may not. Consequently, it scarcely represents my view to say that "a feeling only has aesthetic value when we can revive it afterwards." My contention is that *each* pleasurable element is a part of the aesthetic psychosis of *impression*, but that only those elements that are revived in pleasurable phase are *judged* to be aesthetic.

Again: I surely have never implied "that the artist aims not at a pleasurable presentation but rather at a presentation which when recalled shall contribute pleasure." He usually acts, as I have said above, entirely blindly to work out his "Art Impulse" and so far as he during his work becomes an observer, he is *impressed* as all observers are; for him *as an observer* all pleasurable-impressions obtained from his work fuse together into a mass of aesthetic delight. But when he asks himself the question whether his work is beautiful it is another matter entirely: then it is that in the psychosis of *judging* he finds that the revivals of some of the elements that he *calls* pleasurable are really indifferent or positively painful and are to be *judged* to be non-aesthetic.

I cannot imagine what I can have said to lead one to think that I would not agree with my critic when he says "Does not fine colour combination owe its value to certain positive conditions and not merely to the avoidance of repressive pain of shock?" for I have made a special discussion of "Positive Aesthetic Laws" under which I include the effects of *contrast* and *harmony* (see p. 332 especially), etc., etc.; my contention in reference to harmony which Mr Sully quotes was merely intended to show that it could not be made a basic principle, although its importance as a positive principle is acknowledged.

If Prof. Sully had examined my sections on pp. 319 ff. he would have found there a treatment of the "Avoidance of Pains of Excess," and would not have found it necessary to "suggest to Mr Marshall that the ugly offends us not merely by way of repression,...but by way of excess of activity."

In closing this brief reply I desire to express my obligations to my critic for the care which he has given to the consideration of my work.

HENRY RUTGERS MARSHALL.

VII. CRITICAL NOTICES.

An Essay concerning Human Understanding. By JOHN LOCKE. Collated and annotated, with prolegomena, biographical, critical, and historical. By ALEXANDER CAMPBELL FRASER, Hon. D.C.L., Oxford, Emeritus Professor of Logic and Metaphysics in the University of Edinburgh. In two volumes. Oxford: at the Clarendon Press, 1894. Pp. cxl, 535 and 495.

DR CAMPBELL FRASER is to be congratulated upon the completion of his long meditated task, the result of which is contained in the two handsome volumes now issued from the Clarendon Press. The project of an annotated edition of Locke's Essay formed by him many years ago, was abandoned for a time under the conviction of the inadequacy of such an undertaking as a substitute for an edition of the Collected Works; revived again, it has been at last carried to completion in the increased leisure following upon his release from the duties of the professional chair. The need of a worthy edition of Locke is one which has long been felt, and has indeed constituted little short of a national disgrace. We cannot therefore but be glad that Dr Fraser has reconsidered his second thoughts, and since he felt unable to undertake the editing of the Works, has given us this first critical edition of the Essay. Needless to say, he has brought to his task those indispensable requisites for an interpreter of Locke, careful study and broad sympathetic insight. The result is the production of the fullest and fairest presentation of Locke's thought that has yet appeared.

It is impossible to contemplate the volumes before us without instituting a comparison between them and Dr Fraser's now classical edition of Berkeley. And if it cannot be said that the Editor has been as completely successful in his later as in his earlier achievement, this is no doubt almost entirely due to the greater difficulty of the undertaking and to the exceptional demands which Locke makes upon an expositor. Berkeley could be trusted to tell his own tale to an extent which is impossible with his predecessor. The thought of the Irishman is simple and direct, and mainly consists in the development and defence of a single great idea. In the Essay concerning Human Understanding we have his point of departure, given which we require but little more for a full comprehension of the historical relations, of his speculation, at least in its earlier and more characteristic form. In the case of Locke, however, both the critical and the historical problems assume a much greater complexity. In place of the steady pursuit of a single principle, we have an

unsystematical attempt to beat the bounds of knowledge as they appeared to a cautious investigator in the 17th century, who was constitutionally more ready to follow out separately the various suggestions of truth that occurred to him, than to attempt the reduction of them to a coherent unity. Even in its fundamental presuppositions the Essay has notoriously given rise to the most startlingly diverse interpretations. And although it be true that the numerous expositions and criticisms of Locke have scarcely ever been judicious, and have rarely rested on more than the most superficial acquaintance with his work, the source of this confusion must at last be sought in the Essay itself, or rather in the rudimentary stage of philosophical development which it represents. Locke was the first to single out the question of knowledge as a subject for critical consideration, and to place it in the forefront of philosophical enquiry; but unfortunately he took the problem in hand without having made the preliminary analysis which was essential for its successful treatment. Psychology and Epistemology jostle each other in his pages; questions of genesis, of content and of validity are found in the closest connexion with each other; rationalistic and empirical tendencies exist side by side without felt contradiction. To disentangle these various threads, while at the same time showing how it was that they could appear to their author to form a structure "all of a piece," is evidently a matter of no little difficulty. Nor is the difficulty less when we turn from the critical to the historical problem, and seek to determine and appreciate the intellectual influences under which Locke worked, a question to which but little attention has hitherto been directed. Even the relation of Locke to Descartes, the most important of his predecessors, is by no means of a simple or obvious character; and though discussed by Geil and Sommer, it is one which has not yet received adequate treatment. Dr Hertling has recently demonstrated in his volume on "*John Locke und die Schule von Cambridge*," that in many points the doctrine of the Essay stands in closest contact with the current philosophical literature of the time in England, and it is probable that he has not exhausted this field of enquiry. The existence of such influences, however, was for long hidden, and their detection is still hindered, by the absence of explicit reference to the work of others. Such was the literary habit of the age; while, no doubt, Locke's professed contempt for a knowledge of the opinion of others, and the long period of time during which his chief work was pondered in his mind, both tended to obscure for himself the true historical relations of his work.

Such being the nature and extent of the difficulties raised by the famous Essay, it is perhaps hardly to be expected that an Editor should succeed in dealing in an equally full and satisfactory manner with them all. Dr Fraser's interest appears to have been less aroused upon the purely historical side, since it is here that his prolegomena and annotations will be found to afford the least assistance. Dr Hertling's work is dismissed in a passing reference, in which the

opinion is expressed that the influence of the Cambridge School upon Locke has probably been overestimated by that writer, but no attempt is made to determine the precise relation between the doctrine of the Essay and this group of contemporary thinkers. The references in the notes to the works of other philosophers are mainly of the nature of criticisms and elucidations from Locke's successors, although at times both elucidation and historical understanding could be attained simultaneously from his predecessors or contemporaries. Thus quotations are given from the controversy carried on by Clarke with Liebniz on the nature of space and its relation to God, but no reference is made to the correspondence of More and Descartes upon the same subject, though it was clearly present to Locke's mind in writing the more metaphysical passages in his treatment of the simple modes of space. By his annotations Dr Fraser has chiefly sought to render clear the meaning of the text, for which purpose they cannot fail to be found of considerable assistance, while he does not hesitate to point out what he conceives to be the weak points in his author or to supply suggestions of what appear to him to be needed corrections of his doctrine. It is, however, to the prolegomena which precede the text that we must look for a connected statement of the Editor's conception of Locke and his teaching.

The introductory matter is divided into three sections: (1) Biographical, including a short account of the principal contemporary criticisms of the Essay which we would gladly have seen extended; (2) Critical; and (3) Historical, or the subsequent development of the position of the Essay by Berkeley and Hume. The second, which is also considerably the longest of these divisions, is that which most solicits our attention. The general point of view here adopted will of course be familiar to students of the volume on Locke already contributed by the Editor to Blackwood's Philosophical Classics, but the agreement disappears when we come to compare the order of exposition as well as in the manner and fulness of treatment bestowed upon various points of detail. Recognising, what many have been so slow to perceive, that the centre of gravity of the Essay lies in the fourth book, for which the investigations of the earlier books are intended to prepare the way, Dr Fraser starts at once in his exposition of Locke's thought from the definition of knowledge as "the perception of the connection and agreement, or disagreement and repugnancy, of any of our ideas" (Essay, Bk IV. Ch. 1, § 1). Analysing this definition he finds that knowledge presupposes, first, ideas; secondly, relations of connection or repugnance between ideas; and thirdly, a perception of these relations: a separate treatment being accorded to each of these three elements.

By adopting this order Dr Fraser succeeds in imparting to his exposition a freshness which is too often lacking in the work of commentators upon Locke, while in emphasising the importance of the investigation of knowledge in its concluding book he has placed the Essay in its proper perspective. Dr Fraser's conjecture that "the

investigations proper to the fourth book were those which engaged Locke at the outset, and that those now appropriated to the other three were entered upon, when his conception of his enterprise became more extensive" (p. lvii), would indeed be misleading if taken without qualification to imply that the theory of the genesis of ideas was of the nature of an afterthought. The questions of the "original" and of the "certainty and extent" of human knowledge are found in immediate juxtaposition in the fragment dated 1671, in which, after stating his problem as "Intellectus humanus, cum cognitionis certitudine et assensûs firmitate," he begins, "First, I imagine that all knowledge is founded on and ultimately derives itself from sense, or something analogous to it." But although the tracing of ideas up to their "original" appeared to Locke from the first as an essential part of his undertaking, there can be no doubt that it was then and always subordinated in his mind to what we now know by the name of epistemological investigations. It was in these latter that he himself placed his claim to originality. Thus, in his second letter to Stillingfleet he tells us "where, if anywhere, that itch of vain-glory was likeliest to have shown itself, had I been so over-run with it as to need a cure. It is where I speak of certainty, in these following words...'I think I have shown wherein it is that certainty, real certainty, consists; which, whatever it was to others, was, I confess, to me heretofore one of those desiderata which I found great want of.'" And the implication is the same whenever he attempts a comparative appreciation of his own work. With this main purpose of the Essay the argument of the first book stands in immediate connection. Locke's famous polemic is usually represented as having been intended merely to clear the way for the theory of the genesis of ideas which follows. In reality however it is primarily directed against the assumption of innate *principles*, and the argument is only turned against innate *ideas* as an *a fortiori* confirmation of this conclusion. That it does not receive its full positive complement until the fourth book has established wherein knowledge and certainty consist is implied in the opening paragraph of the discussion. "It would be sufficient to convince unprejudiced readers of the falseness of this supposition," we are told, "if I should only show (as I hope I shall in the following parts of this discourse) how men, barely by the use of their natural faculties, may attain to all the knowledge they have, without the help of any innate impressions, and may arrive at certainty without any such original notions or principles." (Essay, Bk I. Ch. 2, § 1.) Dr Fraser well indicates the broad general motive of Locke's attack—"to explode prejudices, dispel empty phrases, and substitute rational insight for *blind* dependence on authority" (p. 87, Note 2)—though seeming to hold that philosophically it was little more than a pure *ignoràtio elenchi*. A careful examination of Locke's argument and a comparison with the minor philosophical literature of the age, would, I think, show that it was not by any means so entirely misdirected; while even against Descartes, it was not wholly without point. It should at all

events be borne in mind that Locke does not directly attribute the doctrine of an explicit innateness to his opponents, but rather offers it as a deduction from their expressions, as one of the ways in which a consistent meaning can be given to the theory, and the only one which will serve the purposes for which it was designed.

Having analysed the presuppositions of knowledge as indicated in Locke's definition, Dr Fraser proceeds to consider the review of the field of human knowledge which is contained in the fourth book of the Essay. Here again, and less happily I think than before, Locke's order is inverted. The definition of knowledge having been laid down as the starting-point for the consideration of the whole theory of the Essay, we naturally expect to find Locke's ideal of knowledge placed in the forefront in an interpretation of his views concerning knowledge. Now the ideal of knowledge for Locke lay in an intellectual intuition of the specific relations between ideas. This always forms the standard by which he tests the human power of knowing and reveals its limitations; to the heightening of this faculty he looks for an explanation of the superior intelligence of angels and of men in another state (Bk IV. Ch. 17, § 14); while the divine understanding he conceives to consist in a complete and ever-present intuition of this character. Dr Fraser, however, treats first our knowledge of real existences, then our knowledge of ideas as coexisting attributes and powers of substances, and last of all our knowledge of the abstract relations of ideas, in which we certainly have the readiest exemplification of Locke's definition of knowledge.

A justification is apparently sought for the position assigned to our knowledge of real existences in the consideration that two such real existences—"external objects" and "our own minds"—are presupposed throughout the Essay. This however is hardly to the point, since when tested by the criterion of knowledge our assurance of one of these is declared to come short of strict theoretical perfection. In his treatment of this subject, Dr Fraser does not always seem to distinguish clearly between Locke's treatment of the question of the reality of knowledge and that of our knowledge of real existences. In respect to the inferences to be drawn from and concerning simple ideas, the argument of the eleventh chapter of the fourth book may appear at first sight to be but a repetition and elaboration of that of the fourth section of the fourth chapter, but such is far from being the case in the author's intention. In the latter passage Locke seeks to show from the inability of the mind spontaneously to form a simple idea that our knowledge concerning simple ideas, whether of sensation, memory or imagination, is real knowledge, i.e. as he expresses it, more than "bare imagination." This argument Locke conceives to hold good whether or not anything actually exists in the external world from which we could now receive the simple idea in question, and would even be unaffected by the adoption of the Berkeleyan hypothesis concerning the nature of the external world. In the eleventh chapter, on the other hand, Locke affirms the implication in present sensation of the existence of something other than self or God,

the two real existences our knowledge of which, he holds, fully satisfies his criterion of knowledge. The distinction becomes of more importance when applied to our mathematical and moral knowledge, which Locke seeks to vindicate as real, though not concerned with real existences. It is sufficient to constitute real truth, he considers, if the ideas involved are "such as we know are capable of having a real existence in nature" (Bk IV. Ch. 5, § 8); and our mathematical and moral ideas are regarded as being evidently of this character, even though nothing exactly corresponding to them may ever have had an actual existence. It is this reality of knowledge which Locke undertakes to make good against an imaginary opponent in the passage quoted by Dr Fraser near the commencement of his treatment of our knowledge of real existences. To say that the passage implies that "Locke himself sees that 'connection and repugnance' of abstracted ideas is construction of 'castles in the air'" (Prolegomena, p. lxxxiv) is, I think, likely to be misleading, since our mathematical and moral knowledge would seem to be involved in this condemnation, whereas Locke's aim is to defend these among other departments of knowledge from the imputation of illusoriness on his principles.

The fundamental purpose of the Essay, according to Dr Fraser, was to set a limit to the vain pretensions of dogmatism, and its final outcome an exaltation of faith as a guide in human affairs. In consequence of the emphasis laid by him upon this part of Locke's thought Dr Fraser has, I think, scarcely dwelt sufficiently upon the more positive elements of his theory, and at times seems inclined to unduly depreciate these. The negative aspect of his work was undoubtedly uppermost in Locke's mind when he undertook the examination of the problem which continued to occupy him for nearly twenty years before his speculations were made public, and maintained a prominent place in his scheme to the end. But it was impossible that as his task progressed under his hands his interest should not also be aroused on the more constructive side of his enquiry, and as we have already seen, it was in the discovery of what he regarded as a positive criterion of "certainty, real certainty" that he subsequently took most delight. From a comparison of the first edition of the Essay with the later ones issued during his lifetime, it would, I think, too, appear, that after its publication it was the more positive and less sceptical side of his theory which Locke continued to develop. The capacity for demonstration of the mathematical and ethical sciences further exercised his thought (see the changes in Bk IV. Ch. 2, §§ 2—10);[1] the broad assertion that we have "no knowledge of what combinations there are of simple ideas existing together in substances but by our senses" (Bk IV. Ch. 8, § 9) received qualification;[2] while most of the more speculative passages of the essay were

[1] Dr Fraser omits to call attention to the fact that the last two and a half lines of the tenth section were added by Locke in the fourth edition.

[2] The above is the reading of the first edition. In the second and subsequent editions the words "little or no knowledge" are used. This, it

introduced in the later editions which appeared during his lifetime:—e.g. the ideal of an ever-present memory of all one's actions (Bk II. Ch. 10, § 9); the suggested explanation of the creation of matter (Bk IV. Ch. 10, § 18); the assertion that pure spirit or God is only active, pure matter only passive, while created spirits are both active and passive (Bk II. Ch. 23, § 28),[1] a view which was only referred to as "worth consideration" (Bk II. Ch. 21, § 2) in the first edition.

A full examination of these variations in the text is an interesting theme for discussion, and one which has been placed within general reach for the first time by Dr Fraser. It must, however, suffice here to point out a few of the instances in which such changes have escaped the editor's attention. The most important of these occurs in the ninth section of the opening chapter of the fourth book, in which the fourth edition shows a complete change of front, upon the nature of our assurance of truths of which we have been previously convinced by demonstration, in cases in which we remember that demonstration has been given, but forget the steps of which it consisted. In the first three editions Locke held that such a conviction was "something between opinion and knowledge," since "strictly speaking," one here "rather believes his memory than knows the thing;" while in the fourth edition he tells us that he has seen reason to change his view, and that "upon a due examination" he found that "it comes not short of perfect certainty, and is, in effect, true knowledge." He adds that upon the principle involved here, viz. "The immutability of the same relations between the same immutable things," depends the possibility of obtaining general knowledge in mathematics from particular demonstrations. The "due examination" of which he speaks seems to have been forced upon him by his controversy with Stillingfleet, who, in his second letter, had given our conviction that the three angles of a triangle are equal to two right angles, even though the steps of the demonstration had passed from our recollection, as an instance of a "certainty of memory" which could not be brought under Locke's definition of knowledge. Indeed a portion of the rewritten section will be found to have been taken bodily from Locke's controversial reply. No notice either is taken of the sentence added in the second edition to Bk II. Ch. 1, § 3, for the purpose of removing a possible misconception as to his meaning when he spoke of the senses as conveying perceptions into the mind. Again in Bk IV. Ch. 11, § 14 the first edition had merely concurred in the propriety of bestowing the term *aeternae veritates* upon "many" of our general propositions concerning the relations of abstract ideas; whereas, in the second and later editions, we are told that all such propositions have a right to the term. This correction was evidently due to Molyneux, who mentioned the question of *aeternae veritates* as one which he would

should be observed, is one of the variations which Dr Fraser fails to indicate.

[1] The addition of this passage in the fourth edition is also not noticed by Dr Fraser.

like to see further discussed. (See Molyneux's letter to Locke of March 2nd, 1693, and Locke's reply of Aug. 23rd, 1693. Still, as early as 1681 Locke had written in his journal, "our general knowledges are *aeternae veritates*.") Considerable additions were made in the fourth edition to Bk III. Ch. 6, § 23, to Bk IV. Ch. 12, § 3, and to Bk IV. Ch. 17, § 15, none of which are here indicated by brackets or note. It may be added that the obvious misplacement of the headings of §§ 15, 16, 17 and 19 of the first chapter of the second book, which seems to have persisted from the first publication of these headings, remains uncorrected.

Many slight verbal alterations between the first and the fourth edition which have escaped the Editor's notice might also be pointed out, did the limits of space permit. None of them are without some interest as illustrations of the defects which the author admitted to exist in his work owing to the fragmentary manner of its composition, and as showing what points seemed to him to be worth correction. We see him at work seeking to bring his earlier phraseology into better agreement with his matured conclusions; emphasising his identification of knowledge with judgment as opposed to idea, and with absolute certainty as opposed to the highest degree of probability. The existence of these numerous oversights must of course detract from the value of the present volumes as a completely satisfactory edition of the Essay. They can, however, easily be corrected, and they will not at all events cause any serious student of British philosophy to forget the debt of gratitude under which Dr Fraser has placed him, by what he assures us has been to the Editor a labour of love.

JAMES GIBSON.

Metaphysik. Von FRANZ ERHARDT. Erster Band. *Erkenntnistheorie.* Leipzig. O. R. Reisland, 1894. Pp. x, 642.

IT is an agreeable surprise to come on a philosophical work in any language of which the style is at once clear, simple, forcible and fluent. But when the work exhibiting these literary qualities is written in German our pleasure at receiving such an unexpected boon is doubled. Herr Erhardt may be right or he may be wrong in his metaphysical conclusions—and for my part I think he is wrong—but at any rate he has presented them with such mastery of composition as to leave the reader no excuse for misunderstanding their import or for underestimating the strength of the arguments by which they are supported.

The present volume offers itself as a complete epistemology. It undertakes to prove that we may acquire a real knowledge of ourselves and of a world without us, and to show in general outline how far that knowledge extends. There is no novelty in any single position maintained by the author; his originality lies in a combina-

tion of theories generally considered to be irreconcilable with one another. Taken altogether, his doctrine may perhaps be best described as Reasoned Realism, though differing in some important respects from what Mr Herbert Spencer understands by that phrase. For while Mr Spencer holds that space and time are, like all other representations, acquired in the last resort by experience and impressed on the subject by certain unknown qualities of things in themselves, Herr Erhardt takes up the original doctrine of Kant that they are pure intuitions *a priori* not answering to any external realities but created by the subject as a framework for the arrangement of its states of consciousness. But having gone so far with Kant he refuses to go a step further. The whole system of categories is a delusion; the category of causality in particular has nothing to do with the logical couple Reason and Consequent, it is independent of the time-form, is learned from experience, is applicable to things in themselves, and affords some insight into their constitution. Or, to present the same thesis from a somewhat different point of view, deduct space, time and subjective sensation from our experience and the remainder answers to an objective reality.

Our author begins by disproving the belief of Natural Realism —or as he calls it Naïve Realism—that we have a direct perception of things in themselves, employing for this purpose the arguments that have long done duty among philosophers. He then goes on to attack the modified realism commonly entertained, at least as a working hypothesis, by the students of physical science. This doctrine still maintains as valid Locke's distinction between the primary and secondary qualities of matter. Among the former are reckoned extension and movement, which when considered as properties of things in themselves necessarily involve the objective reality of space and time. Against this position our author directs a formidable dialectical cannonade sustained with unflagging energy through some hundreds of pages in the course of which all Kant's arguments are taken up, restated at considerably greater length, defended against the chief objections that have been brought against them, and reinforced by a series of additional proofs. It seems likely that Herr Erhardt's chapters will for a long time to come be quoted as the classic presentation of the case for the ideality of space and time, for their interpretation as pure *a priori* forms of intuition.

The author is perfectly aware that one may believe in the subjectivity of space without being a Kantian. Herbart and his school in Germany and the associationist school in Britain have attempted to show that extension is a complex representation built up from more elementary forms of consciousness. Dr Whewell in his *History of Scientific Ideas* seems indeed to consider that Brown's theory of the muscular sense harmonises with and explains Kant's aperçu. But Herr Erhardt will not hear of any such compromise, and attacks the analytical psychologists with as much animosity as the natural realists. For him, as for some critics nearer home, the radical error

of their constructions is the attempt to evolve space out of elements which are not spatial. Here, as it seems to me, he and others have misapprehended the associationist theory. According to this, as I understand it, space *means* nothing but the suggestion of those states of consciousness, call them muscular sensations, feelings of central innervation, or anything else, which indubitably accompany our voluntary movements. But his criticism brings into evidence what certainly seems a weak point in the analytical theory. Its supporters have not, so far as I know, laid sufficient stress on the part played by the intellectual consciousness of coexistence in our space perceptions. Coexistence, though our author seems to think the contrary, is not the same as space, and is quite conceivable without it, as when we hear a sound and smell an odour at the same time. But without coexistent sensations the perception of space would be impossible. No succession of visual or tactual impressions however often repeated or reversed could suggest the notion of simultaneity had it not been present from the first. Indeed it has been well observed, I think by Prof. Bain, that coexistence and succession are a correlative pair and start into existence together. And if consciousness, as seems to be generally admitted, is a synthesis of the manifold it must arrange its elements under these two forms, at least experience tells us of no others. They are presupposed in the perception of resemblance and difference, for two objects cannot be thought of as like or unlike unless they are compared, and they cannot be compared without being considered together or one after the other. What the muscular feelings contribute to our space-perception is the connexion and continuity that are as it were the body of which coexistence is the soul. To me at least the idea of motion seems especially associated with the sense of distance or depth; and it is just here that Herr Erhardt shows himself most iniquitously prejudiced against the psychological theory. All three dimensions of space are, according to him, equally known by intuition. But he fails to explain why the illusion of distance is produced by perspective. In reply to the theory that the perception of solidity is acquired through the superimposition of the two retinal images he observes with justice that we see stereoscopically even with a single eye (p. 133); but does not attempt to explain how the stereoscope by combining two flat images can produce the illusion of solidity.

Undoubtedly the universal space of the geometricians and the astronomers with which Kant was primarily concerned has properties not accounted for by the theory of suggested muscular sensations. But then the psychologists would maintain that this space is an intellectual construction gradually built up by combination and generalisation from individual experiences. Kant, who paid little attention to the history of thought, mentions the infinity of space as a proof of its *a priori* origin. But we now know that to Parmenides the limitation of space was a self-evident truth; and if it be objected that Parmenides was a paradoxist who habitually set

common sense at naught, we may quote the still more telling instance of Aristotle who, though habitually leaning on common opinion, still believed space to be finite; while Lucretius in arguing for the opposite theory writes as if he expected it to be received with some surprise and reluctance.

Kant, as is well known, found in the apodeictic character of geometrical demonstrations the strongest proof of the ideality of space. Without going quite so far our author thinks that the peculiar certainty of mathematical reasoning, which he powerfully maintains against Mill and others, is best explained by that thorough insight into the constitution of space given in the fact that we have created it. But neither he nor Kant attempts to show how the axioms of geometry which nearly everybody accepts as necessary truths can owe their hold on the reason to the latent consciousness of a principle which when it is explicitly stated nearly everybody rejects as inconceivable. In this connexion there is another point which deserves more attention than it has hitherto received from philosophers. Granting the dependence of *a priori* demonstration on the subjective origin of the object whose properties are demonstrated, it does not follow that space as a whole is subjective, seeing that geometry is concerned only with its divisions, which certainly are of an ideal nature as the continuity of space forbids its being ever really divided.

However this may be, it is from the side of the mathematicians that Kant's theory has had in more recent times to suffer the most formidable assault. While the psychologists have attempted to show that the cognition of space, so far from being a simple direct intuition, is a highly complex product of different sense-elements, the geometricians have boldly suggested the possibility that our knowledge of space, so far from being perfect, is incomplete and superficial. But, on Kantian principles, that of which we do not thoroughly understand the constitution cannot be the product of our own subjectivity. Herr Erhardt rightly regards the non-Euclidian geometry as a formidable obstacle to his attempted rehabilitation of the transcendental aesthetic, and sets himself to refute it at considerable length. The section devoted to this difficult question (pp. 226–258) exhibits his powers of lucid statement and searching dialectic at their very best, and well deserves the attention of mathematicians and psychologists. To those who plead for the possibility of a fourth dimension of space by appealing to the analogy of supposed two-dimensional creatures moving on the surface of a sphere he replies by insisting on the inconceivability of a space-intuition that does not involve three dimensions, since the field of vision is always viewed as projected to a distance from the observer. And, assuming the possibility of dwellers in "Flatland," he argues very reasonably that in finding their supposed parallel straight lines to intersect, they would simply infer the existence of a third dimension, whereas there is not a single fact permitting us to suspect the existence of a fourth dimension. As to the question whether our space is flat or

curved, he confesses that for his part he has never been able to attach any meaning whatever to it.

Those who try to combine Kant's theory of intuition with a belief in the objective reality of space will find the sixth chapter of this work, "Die Idealität des Raumes," a hard nut to crack. It is otherwise with those who distinguish between the empirical space of muscular sensation and a synechology constructed to explain the facts of science. And in the course of an argument against E. von Hartmann, who supports this view, the author is led into some admissions which make his own position rather difficult to understand. He clearly believes in a universe of co-existent objects; he thinks that they undergo changes answering to what we call motion, and that this change must be conceived as continuous (p. 351); he even allows that any two real things are separated by what he calls a "metaphysical distance," and that in the system of transcendent relations by which things in themselves are connected there are differences corresponding to the differences of direction in space, nay even that there is a threefold difference corresponding to its three dimensions (p. 352). True, the admissions are qualified by a caution that no positive notion whatever can be associated with these analogies. But as we shall presently see, his own theory of causation is liable to precisely the same drawback. We have first however to say something about the author's theory of time.

It was St Augustine, I believe, who made the famous answer quoted by Locke, "If you do not ask me what time is, I know it; if you ask me, I do not know." Similarly our modern epistemologist is much more successful in overthrowing other people's opinions about the origin of this mode of consciousness than in establishing his own. He proves after Kant with apparently irresistible cogency that our notion of time cannot be generalised from any experiences of coexistence and succession, since we cannot represent those relations to ourselves without reference to time as their *prius*; and he shows after Riehl that a series of feelings might succeed one another indefinitely in our consciousness without awakening the feeling of themselves as a series (p. 375). But how does the *a priori* theory improve matters? If time is a creation of our subjectivity, if spontaneously and without any compulsion from objective reality we arrange our feelings in the order of succession, the operation is performed without our being conscious of it, and by a part of ourselves of which we have no knowledge; otherwise Kant's theory would not appear as such an astounding paradox. But if so the difficulty remains as to how we ever become conscious of time, how we are able both to distinguish the indivisible present moment from, and to connect it with a past that has ceased to exist. Whether we pay out the rope or pull it in can make no difference to our perception of it as a thing that has length. If however we understand consciousness as a synthesis of the manifold, the difficulty seems lessened. To integrate a given series is not to impose a certain order of succession on its parts. Again, the author tries to show

that it is equally impossible to conceive time as a thing in itself apart from events or as a mere abstract order of succession in change. But surely all such objections apply equally to the subjective theory. "It is absolutely incomprehensible," he tells us, "that a mere succession of empty moments of time should have an independent existence" (p. 404). "Well and good," we reply, "then time does *not* exist independently of the events that fill it." "But that," he rejoins, "is supposing that things in themselves produce time, and any system of relations imagined for that purpose presupposes what was to be explained" (p. 406). "And so also," we reply, "does the theory of its subjective origin, for the words origin and production imply a time in which the subject works."

It may be observed, in opposition to the theory set forth in the work under consideration, that just as the notion of mathematical or cosmic space is developed out of the primary intuition of coexistence interwoven with our experiences of motion, so also the metaphysical notion of time is developed out of the primary intuition of succession combined with experiences of rest or immobility. The unchanged background against which changing appearances are projected accompanies them so to speak at every instant of their progress in time, and thus comes to be itself enveloped in the march of time under the name of duration. Thus time becomes dissociated from the motions or other changes of concrete objects, and then, by a final effort of abstraction, from unchanging objects as well. With this last idealisation we no doubt enter on the paths of unreality, but that is not a reason for pronouncing all succession a delusion.

The ideality of time is infinitely harder to accept than the ideality of space because, as the author himself points out, "we have in our own soul, or to put it more cautiously, in the unity of our consciousness, the example of an unextended being" (p. 423). Nevertheless he professes to find in consciousness itself a complete proof of the ideality of time. For, he argues, the indivisible timeless present moment alone exists for our consciousness, and in that moment we know both ourselves and the timeless essence of things. "But a sum of timeless moments cannot make time, and such a sum is all that can objectively exist" (*ib.*). The fallacy of this reasoning is transparent. If a sum of such moments cannot make time, neither can they be obtained by subdividing time, and yet it was by such a subdivision that they were reached. But in fact the very function of consciousness is to integrate the time-series, not to draw a breadthless line across its evolution.

Another argument for the ideality of time deserves to be mentioned if only as a curiosity. It is drawn from the phenomenon of second-sight, the reality of which, in the author's opinion, "cannot well be disputed" (p. 409). He thinks that such manifestations would lose much of their mysteriousness were it admitted that time is merely subjective. If so we must take from the time-form those marks of universality and necessity on which Kant laid so much stress. But granting that there are persons enjoying an occasional

immunity from the obligation of viewing events according to their chronological sequence, how comes it that the scenes which they foresee are still presented to them as occurring in time? and why is their exceptional vision so much more often directed to the future than to the past? A cynic might answer the latter question by observing that the kind of curiosity which most powerfully stimulates illusion and imposture is much more interested in what is to be than in what has been.

If the whole content of self-consciousness is presented to us under the form of time and if that form is itself a subjective figment interposed between the inner sense and its objects it seems to follow necessarily that, as Kant himself held, we cannot know ourselves as we really are. But Herr Erhardt is not of this opinion. Falling back on the method of Descartes, he argues that the soul to which an external world appears must itself be real, and, since subject and object are one in the sphere of inner consciousness, must know itself with a real knowledge. How he reconciles this position with the principles of the transcendental aesthetic may partly be gathered from the foregoing exposition of his views on the ideality of time. The doors of past and future do not shut so closely on the soul as not to leave a chink through which its real nature shines through. At every present moment we stand revealed to ourselves as feeling, thinking, willing persons, and although the projection of these momentary states into a time-series is illusory, the revelation remains true. All this seems to me mere trifling. After bidding defiance to common beliefs through some hundreds of pages it is rather late to begin appealing to the irresistible evidence of self-consciousness; but if the appeal is made its statements must be taken as true in their entirety. To me at least feeling, thinking and willing are unintelligible except as processes occupying a certain time, and to concentrate them into an indivisible instant is to destroy them altogether.

The same criticism applies to the author's attempt to establish the reality and cognoscibility of an external world. I entirely agree with his rejection of Kant's doctrine of the categories as artificial and fictitious throughout. As regards causality in particular the attempt to connect it with the logical relation of Reason and Consequent on the one hand and with time considered as a necessary form of intuition on the other is a lamentable failure. Farther, Herr Erhardt is quite right in rejecting Schopenhauer's theory that we intuitively refer our sensations to an external cause. But his own account of causality and his attempt to use it as a bridge between our minds and things in themselves seems not less illusory. Like many other philosophers he deduces the idea of causation from our experience of voluntary effort and of the changes produced thereby in the content of consciousness. He puts forward the usual argument that this productive effort implies something more than or rather something different from mere antecedence and consequence. To the objection that even in the case of voluntary action analysis can

discover no more than a relation of antecedence and consequence between the effort and the movement he replies that "such a theory is too artificial and too recently formed to account for the origin of the idea of causation" (p. 471),—as if the whole gist of Hume's theory, as elaborated by Brown and Mill, was not that causation simply *means* unconditional antecedence! Of course we encounter the old argument that the succession of night and day gives no idea of causal connexion (p. 477). To begin with, is that quite so certain? Polonius gives this very sequence as the supreme type of necessity; and the Oedipus-myth seems to show that among more primitive men day and night were regarded as generating one another. It is however true that we do not consider day as the cause of night, and that for the excellent reason that we have in the disappearance of the sun below the horizon a more immediate and universal antecedent for darkness than the illumination he previously afforded. Such an obscuration, resulting from the interposition of a solid body, is of continual occurrence even during the daytime, and therefore in this instance takes rank as the antecedent that we call a cause. Returning to mental trains, I must observe that all the instances of a control exercised over thought, feeling and action furnished from his own experience by the author as types of irreducible causation (pp. 472—3), are nothing to the point, and seem particularly out of place when urged by an opponent of free-will (pp. 493 ff.). The phenomenist, after listening to all this *ad captandum* rhetoric, will remain unshaken in his assertion that our volitions find their only explanation as incidents in the universal procession of appearances, and that to refer them to the primordial agency of the self as a reality standing behind appearances is to confound the abstract unifying principle of consciousness with the source whence consciousness derives its content.

The category of causality obtained by this very summary and superficial process of introspection, is extended to the outer world by an equally summary and superficial interpretation of the feeling of resistance. That which opposes our will must like it be a cause = a thing in itself. But although causation as a subjective experience is invariably accompanied by the feeling of effort, we must not think of this or apparently of any other feeling as constituting the reality of matter. Where ideas fail us a word presents itself at the right moment, and both causes, the subjective and the objective, are happily subsumed under the name of force. Without attempting any analysis of resistance I may here observe that it is an experience of our inner as well as of our outer or spatial consciousness, as the reader may verify for himself any day (and especially any night) by trying to get rid of an importunate idea or to hold fast a reluctant one. In truth what we call the resistance of material objects so far from either revealing or proving the existence of an external world, involves the conception of such a world as already formed.

Herr Erhardt does not deny that in our empirical consciousness a change is related to its cause as consequent to antecedent, whatever

else may be the relation between them. He accounts for this necessity in a somewhat curious manner. "A change," he tells us, "is something that occurs at a particular time before which it did not exist." Now every moment of time is determined by all previous moments, and an event on entering time must submit to this general law of determination. But time in itself is absolutely powerless to fix the place of an event; therefore it must be determined by another real event preceding it, and so back for ever (p. 486). Apply the same reasoning to space and see how it will work. A body on being presented to us in space must occupy a certain area. Now the position of every area in space is determined by the position of all the other areas that collectively constitute its infinite extension, and every body entering space must submit to this law. But space itself is powerless to fix the position of a body, therefore it must be fixed by another body in contact with it, and so all round to infinity. This is the doctrine of the plenum, which may or may not be true, but which certainly does not claim equal necessity with the law of causation. In fact whatever happens is merely bound to be up to date; and the previous course of time seems quite capable of enforcing that attenuated obligation.

Kant remains justified as against his latest disciple. However much there may be in body besides extension, however much there may be in causation besides antecedence, both become not only unimaginable but also unintelligible apart from space and time. It is better to be frankly agnostic than to drape our ignorance with a transparent veil of unmeaning words.

ALFRED W. BENN.

Social Evolution. By BENJAMIN KIDD. London: Macmillan & Co., 1894. Pp. 348.

MR KIDD'S title has the merit of being descriptive of his subject, his aim being (1) to find an answer to the problem of human society as it exists around us, to give some clear message as to its future evolution, doing this by means of what he himself would probably not refuse to call the Biological Method, (2) to set forth the factors of this evolution and their conjoint action—the motives which have influenced those voluntary actions of men by means of which the evolution has been carried on.

Mr Kidd looks at human society as an organism—as an individual having an unity of existence throughout changing phases of development, and consisting of parts, each of which has a share in, and contributes towards, the life of the whole. He regards the doctrine of evolution as 'scientific'—*i.e.* as based, and reasonably based, on observation of past history, as not really going beyond the record of experienced facts; and he attempts by reasoned contemplation of the recorded changes of human society, to arrive at the

law and causes of its development, and thus both concatenate what is said to have taken place already and foretell what is going to take place in the future.

He thinks that from the beginning of the Christian era there has been a steady advance of "Western Civilisation"—a continuous progress towards a condition in which there will be equality of opportunity for all together with a keenness of competition which becomes more and more strenuous as the rival competitors become more and more nearly matched. Mr Kidd does not seem to have observed the great difficulties in the way of any combination of *equal opportunity* and *free competition*. The individual differences, mental and physical, of human beings, are (and apparently will go on being) so great, that even mere freedom from gross legal unfairness must speedily produce a state of things in which anything like *equal opportunity for all as they enter into the rivalry of life* could only be brought about by the most extreme legalised interference with the *results* of that freedom. Since anticipation of results is the very main-spring of competition, it seems clear that every advance in equalisation of opportunity beyond a certain point must be followed by a corresponding deadening of competition, with its concomitant waste of power, and resultant embarrassment of choice in the matter of appointments and so forth. Even if this difficulty were ignored, it might not be easy to draw up a satisfactory scheme of the conditions (as to time &c.) of permissible handicapping. As far as I have observed, Mr Kidd does not offer any ultimate principle by reference to which such a scheme might be constructed and estimated.

However, leaving these difficulties on one side, it remains that, in Mr Kidd's view, the course of 'Western Civilisation,' the social evolution in which the West European states are now involved, is a process that has tended continually to enfranchise and uplift the people and to bring each and all into the rivalry of life on a footing of equality (pp. 243, 299 &c.). In the period preceding the present,—namely from the beginning of the Christian era to the Reformation—we find "the development of an ultra-rational sanction for the constitution of society; which sanction attained in the European Theocracy of the fourteenth century a strength and influence never before known." From the time of the Reformation, it is said, we find the most important feature of the development to be a continually growing sense of the value and responsibility of the individual—the altruistic ideals of Christianity being now able to come to the front and to develop under the shelter of that dependence on supernatural or super-rational sanctions which had grown to its full strength in the preceding period. It is to these altruistic ideals "in which all the bonds of race, nationality, and class were dissolved," that he attributes the power of Christianity; and to this he attributes also the antagonism and persecution which it met with from the Romans (p. 151). Though sometimes great stress is laid on the influence of a doctrine—*e.g.* the doctrine of the innate equality of men (p. 153 &c.)—yet the whole evolutionary

process from the time of Christ to the present day, is described as an ethical (cf. p. 147) or as a religious movement. "The evolution which is slowly proceeding in human society is not primarily intellectual but religious in character" (p. 245). "From the nature of the case, the intellect could not have supplied any force sufficiently powerful to have enabled the people to have successfully assailed the almost impregnable position of the power-holding classes....The motive force we must apparently find in the immense fund of altruistic feeling with which our Western societies have become equipped; this being, with the extraordinarily effective sanctions behind it, the characteristic and determinative product of the religious system upon which our civilisation is founded" (p. 165).

According to Mr Kidd, in the progress of the human race which has been taking place, there have been two factors working in the minds of men, (1) Reason, (2) the altruistic force of which we have just spoken—this force being, in Mr Kidd's view, opposed to 'Reason' and working for the benefit of the *race* as opposed to the benefit of any individual or generation of individuals. It is a force which, we are told, has steadily prevailed over 'Reason,' having been enforced by super-natural or super-rational sanctions. (It needs to be explained how conduct due to the influence of *sanctions* can be described as done from altruistic motives. And we are left a little in doubt as to the precise meaning intended to be conveyed by *altruistic*, which in the ordinary sense means simply *caring for others*, but is by Mr Kidd sometimes restricted to *caring for future generations*.)

This victorious force has, in fact, been the Christian Religion, the generic character of which is reference to and dependence upon the supernatural and the unseen—its specific character being its lofty and thorough-going altruism. All religion (according to Mr Kidd) is in its very nature contrary to 'reason,' incapable of proof, going beyond experience, unscientific—the antagonism between Science and Religion is thus a necessary one and inherent in the nature of the case.[1] Again, since the 'interests' of any individual, or any generation, are hopelessly irreconcileable with the interests of the race, the business of religion is to over-ride these individual or temporary interests. It is said to be in obedience to the irrational promptings and not to the voice of 'reason,' that that process of Natural Selection (Competition) has been carried on by means of which (through the survival of the fittest) advance has been accomplished.[2] But in this account there seem many difficulties. In the first place, what is meant by the 'sanctions' by

[1] It would surely be a much truer account of the matter to say that the conflict between Science and Religion has been a conflict between *different stages* of Reason and Feeling.

[2] It ought perhaps to be noticed that in Mr Kidd's view, it is because Weismann's theory of heredity is the true one, that such continual stress and struggle of competition is needed in order to the survival of the fittest and consequent advance of the race. This is not the place to discuss the

which (as we are repeatedly told) religion enforces those altruistic actions upon which the fate of future generations depends? By the 'sanction' of a rule, do we not generally understand some appeal to the interest of the person on whom the rule is to be enforced? And 'sanction' in this sense (which is that in which I understand Mr Kidd to use it) is a distinct appeal to 'reason' if by 'reason' we are to understand self-love.

And here I think we are led to see an ambiguity in Mr Kidd's use of 'reason'—for when he speaks of it as leading a man to seek his own interest to the neglect of the general progress of mankind, by 'reason' must be meant the Practical Reason conceived as solely egoistic; when he is insisting that the sanctions of religion do not appeal to reason, and that religion is non-rational or non-scientific, 'reason' seems to be limited by 'Experience' or 'Nature'—it is the appeal to an unseen God, to spiritual terrors, which is regarded as antithetic to reason. Again, when reason is spoken of as Intellect, and opposed to religious and ethical motives and forces, it seems that the contrast is between the 'Speculative' and the 'Practical' Reason—the name of *reason* being now refused to the latter region of human faculty. (It seems to me that the element of truth in this account of the conflict of Reason with Feeling or Instinct—however it may be stated—is exactly expressed in a sentence of *The Methods of Ethics* in which it is said that "though the dictates of Reason should always be obeyed, yet the Dictation of Reason is not always a Good.")

It may be true that no Science of Ethics has as yet been constructed which demonstrates—either from observation of facts or from self-evident principles—with mathematical certainty that the interest of Self and Others is perfectly coincident (though observation seems to show that they are so for the most part). But then a similar objection may be made to Physical Science, which no one holds it unreasonable to accept—for not only in the cases in which we have 'predictive power' do we transcend 'experience,' but every universal proposition transcends experience; and not only is there no systematic construction of Science possible without principles of Substance and Cause which are neither self-evident nor demonstrable, but further the simplest affirmation of scientific fact involves a principle of Unity in Difference which both transcends experience and evades demonstrative proof.

rival theories, but I should like just to observe that it seems to me as though the truth must lie somewhere between the views of Weismann and his opponents—the only possibility of in any way understanding the matter would seem to be by supposing that the original creature or creatures started with a certain definite nature—a nature such that under given circumstances it would act in a given way, and would (if reproductive) produce offspring of a certain kind and so on, throughout all generations. If we suppose a definite nature to start with, we must suppose its future developments under any given conditions absolutely fixed; but this by no means requires the transmission of an unaltered and unalterable germ-plasm.

And again when religion is spoken of as opposed to the individual's reason, is it meant (1) that the individual acts from religious convictions and religious motives with a conscious recognition that in so doing he is acting irrationally, or is it meant (2) that in so acting, he really *is* acting irrationally, but does not recognise the irrationality of his action?

If (1) is meant, the assertion is surely incorrect,—for religious people do not regard themselves as acting contrary to reason or their own interest in obeying their religious convictions—quite the reverse. If (2) is meant, then *this* sense of irrational seems irrelevant, and the need of super-rational sanctions to over-ride the individual's reason is not apparent. And moreover if this second sense is accepted by the author, how does he justify that evolutionary end to which, in his view, "the whole creation moves?" The world-process itself would seem to be irrational and unjust. We are not indeed told by what criterion we are finally to judge, nor what is the ultimate end of human action—and though we are told that human advance has been an ethical process, we hear very little of right or duty, good or ought—the assumption that what is, and what is coming to be, is *Good*, seems to be made without proof and even without explicit statement. At any rate it seems clear that not only is the actual course of change regarded as being towards something Good, but moreover it is held to be good that millions should have to renounce it in order that a certain number of others may attain to a greater measure of it.

And it is rather curious that while Mr Kidd insists so strongly upon the irreconcileable opposition between individual and race interest,—between 'reason' and 'religion'—he is never tired of emphasizing (in the later chapters of his book) the striking altruism of sentiment which marks this age of Western Civilisation, distinguishing it from all other times, and making cruelty, oppression, and all unfairness to others so intolerable to those who have the power in their hands, that they are continually conceding more and more to those weaker than themselves, continually despoiling themselves for the sake of others who suffer from being less well-endowed with wealth and power. This development of altruistic feeling is no doubt one of the great features of our time and civilisation—and it appears to me that Mr Kidd has nowhere shown greater insight than in dealing with this and pointing out its influence—but it seems strange that he should not have noticed the tendency of this body of altruistic sentiment to reconcile the conflict between Self and Others, 'Reason' and 'Religion,' the Generation and the Race. And when Mr Kidd insists that it has constantly been in the power of individuals to refuse to act for general progress, he seems to lose sight of the subordination of each individual in a generation to his surroundings—of the impossibility of individuals altering the general order of society—also of the difficulty of concerted action in opposition to existing authority and custom, and the absence of any widely diffused knowledge of a

definite course of change likely to promote the interest of present individuals as against that of future individuals. And his view here seems to involve the complete rejection of self-interest as actually a prime motive to exertion, and the most powerful factor in competition. It is just the importance of this, and the apparent impossibility of finding any efficient 'altruistic' substitute for it that is generally supposed to make "Modern Socialism" seem so impracticable.

Mr Kidd's book owes much of its charm to the wide reading and wide sympathies of the writer—and his enthusiasm for humanity, for science and for religion—it is, in addition, striking and spirited in conception and clear and vigorous in style. But his method is inadequate, the difficult problems attacked have not been thoroughly thought out in their relations to each other—the scheme of evolution which it is attempted to set before us is wanting in organic unity—the accommodation between Competition and Equality on which so much depends has not been successfully accomplished, and here, and in his treatment of the function of Reason in human life (which is perhaps the weakest part of the book, and notably in curious antagonism with his view of Society as an Organism) the failure seems to arise from want of a sound psychological basis. The Author's insistence on the importance of religion in social development and his optimistic view of the general nature and tendency of that development seem very valuable; but I think that his account of the conjoint action of the causes which have produced the development is not so satisfactory, and that hence the forecasts of the future with which we are provided must be received with caution.

I may just mention here two minor points which seem open to criticism, namely the Author's understanding of Utilitarianism as an ethical system, and his treatment (p. 294 &c.) of parental instinct, together with the very unusual sense in which he sometimes uses that phrase.

E. E. C. Jones.

VIII.—NEW BOOKS.

Lectures on the Bases of Religious Belief. The Hibbert Lectures, 1893. By Charles B. Upton, B.A., B.Sc., Professor of Philosophy in Manchester College. Williams & Norgate. Pp. xii., 364.

These lectures are intended as an introduction to more elaborate works on the Philosophy of Religion such as Dr Martineau's, and are written under the influence of Martineau and of Lotze. The main contention is for the Immanence of God in man's rational, ethical and spiritual nature, as against Agnosticism and Deism on the one hand and the doctrine of an exclusive Incarnation in Jesus of Nazareth on the other. At the same time much pains is taken to distinguish the author's doctrine, which he calls Ethical Theism, from Pantheism; including under Pantheism several current philosophies of Religion which claim for themselves the title of Theism, but which have not, according to Mr Upton, sufficiently freed themselves from the theological limits of Hegel.

In a book of this size and scope the merit we look for in the first place is that of clearly and also comprehensively marking out the boundaries between the doctrine there advocated and the current doctrines of the day which are of chief influence and interest. This achievement Mr Upton has fairly made his own. Two Lectures on the Nature of Religious Belief and on Spiritual Insight hold the place of honour in his book, expound his thesis, and furnish the main evidence which he relies on to sustain it. The remainder of the book is occupied by comparisons of his doctrine with rival philosophies, a comparison which naturally emphasises its meaning and from time to time accumulates further proofs. Lecture iii. shows how the Agnosticism of Mr Spencer and the Positivism of Mr Harrison each deny and each affirm a part of Ethical Theism. Lecture iv. while abandoning what is called Dogmatic Religion to the tender mercies of Recent Science, tries to conciliate this latter power on behalf of Rational Religion, including Ethical Theism. Lecture vi. states the modification which is introduced by Ethical Theism into the old Cosmological Argument for the being of God. Lecture vii. attempts the task of reconciling the ethical item in Theism, God as the source of Ideals, with the Supreme Causation previously claimed and incorporated, in full view of difficulties stated even so recently as by Prof. Huxley. Lectures viii. and ix. finally exhibit the author's debt to Hegelianism and the additions which are necessary in order to rescue Theism from the narrower and colder limits which Hegelianism allows to the religious consciousness.

As will be seen from this outline of its contents the book furnishes a convenient review of the present position of the Philosophy of Religion. The topics, references and quotations are well selected for the purpose. Most arguments commonly in the air are shortly noted at some passage or other, and yet the author does not waste his words on any writers except those who are really influential. Unfortunately we cannot say that he never wastes words over these latter. For the book is throughout so rich in phrases, the aim at forcible and balanced expression is so persistent, that philosophic readers may complain of a surfeit. However the book consists of "Lectures," it is intended for commencing

students, and the author has a purpose to do something more than convince, to help the hearer to exercise more vividly his own spiritual intuitions.

For while the lecturer makes it his primary business to inquire whether the progressive forms of religious belief which recent anthropology describes rest upon a "permanent basis," his procedure in this ambitious task is little more than an appeal to the reader's intuition. Out of the numerous passages which reiterate his main argument we select for quotation the following, a not too favourable one in regard to style:— "The most convincing evidence of the being and nature of God is to be found in the direct consciousness that our finite selves are dependent on, and indivisibly united with, a deeper and infinite Self; and that in our higher reason, in our ethical ideals, and in that love which rises above all egoistic interests, we feel ourselves in immediate relationship with elements of absolute and universal worth and authority which inevitably awake the belief that these are the expression of ultimate Reality, of the self-existent Ground and Source of finite existences." There is also a blend of another argument, a metaphysical interpretation of finite things and finite minds as "differentiations of the essential nature of the Divine Being," and from their origination in this way is to be expected "that there should be an immediate feeling of relationship in our individual minds with the Eternal Mind." But the main work of religious conviction has evidently got to be done by appealing to Consciousness. The author's method is indeed the one made so familiar to English readers by Hamilton and some of his masters, and partially approved and followed by even Mill, that of first finding an Intuition or "fact of consciousness" and then surrendering our philosophic judgment to this charming but perhaps lying witness. "Consciousness," the fact seen by the psychologist or the autobiographer, changes chameleon-like into "Consciousness," the logical principle or premiss; and many of Mr Upton's pages furnish plain examples of this change. A religious philosopher who describes our intuitions with such elaboration and eloquence as Mr Upton does, performs a valuable service to Religion and to philosophic education. But he should very carefully avoid producing in the hearer's mind the illusion that he is proving or evidencing some truth which was uncertain previously; and in this respect Mr Upton's book, like most books of the kind, might, we think, have been more guarded.

Aspects of Pessimism. By R. M. Wenley, M.A., D.Sc., Lecturer on Philosophy in Queen Margaret College, Glasgow; Formerly Examiner in the University of Glasgow. William Blackwood and Sons: Edinburgh and London, 1894. Pp. 332.

This work is a compilation of the Author's own contributions to various periodicals. It consists of six Essays, the first five of which present us with a quasi-historical view of the diverse forms in which Pessimism has manifested itself. The sixth essay is entitled "Pessimism as a System," and one cannot help thinking that this last should have stood first in the order of arrangement, since the meaning of the term Pessimism is not defined with sufficient clearness at the outset, so that it is not easy to determine whether the types which Dr Wenley portrays do or do not conform to the popular conception of Pessimism.

In the first essay Dr Wenley devotes great erudition and critical research to the consideration of Pessimism amongst the Hebrews, and he embodies his conclusions on this point in the following remark; "Jewish theism, unique in theory and invincible in practice, set a limit to Jewish

despair. Yahveh and progress by Yahveh's hand, in short, dictated a hereditary optimism to the Jews, though an optimism in which the pessimistic elements were not without place" (p. 9).

The third essay is a character study of Shakespeare's Hamlet as a victim or an exponent of a pessimistic theory of life.

Dr Wenley rightly describes *Hamlet* as a psychological or subjective drama, the action of which consists in the play of feeling of a central figure exposed to highly specialized conditions of life. Dr Wenley thinks that the keynote of Hamlet's conduct is "his despair, because blameless vengeance cannot be executed" (p. 126). Hamlet hesitates to commit one murder in expiation of another and so finds himself in a moral *cul-de-sac*. This is a form of Pessimism.

In the fourth essay Dr Wenley tries to show that although Goethe is popularly credited with an optimistic theory of existence, his works are really pervaded with a latent pessimistic tone which tinctures all his conclusions.

Dr Wenley says that "pessimism is nothing more than the statement of the practical or moral difficulty which is formulated theoretically in that somewhat amorphous body of doctrine known as Agnosticism" (p. 129). According to this canon, then, Dr Wenley has no difficulty in proving Goethe's pessimistic tendencies, for agnostic Goethe assuredly was, as any reader of his representative works *Wilhelm Meister* and *Faust* must admit.

In the concluding Essay Dr Wenley deals with modern Pessimism as systematized and formulated by Schopenhauer and Von Hartmann. Pessimism is, however, not a new theory of life, but in the present century, as Dr Wenley remarks, "the recurring wail of isolated melancholy has swelled into an inharmoniously harmonious symphony of despair" (p. 250). Schopenhauer's Pessimism is a philosophical theory which accepts Will as the only *reality*. On close investigation this Will turns out to be an all pervading energy in nature ever striving and struggling with insatiable restlessness. Pessimism then does not spring from unsatisfied yearning after the ideal. Even if the ideal was attained there would be no cessation of craving. Misery and suffering are inevitable conditions of existence consequent upon the infinite unrest by which we are ever goaded. "Will, the ultimately real, is essentially fraught with pain and every species of imperfection, because in its ceaseless and frantic effort to find perfect expression it is ever baffled" (p. 262).

Hartmann's Pessimism is a very comprehensive system, having an ontological basis, a historical justification, and a rational conclusion. The ultimate reality of nature is an unconscious entity containing, however, the potentiality of will and idea. Idea emerges into consciousness, fed by illusions, the greatest of which is the expectation of happiness. "The early age of Greece was the period of its first great deceit."—"Full of high hopes for the future."—"The answer to this anticipation was the Roman dominion which, in time, itself embosomed terrific despair." "But as the hope that happiness might be realized on earth faded into thin air, it was succeeded by another"; "happiness" was "conceived attainable by the individual in a transcendent life after death" (p. 289). With the Renascence came a third phase; revived interest in things earthly and a relegation of happiness to the future of the world emerged. Perfected humanity was henceforth the goal of human aspiration. In bondage to this illusion we of the nineteenth century for the most part have lived, and are still living. "After these three stages of illusion of the hope of a positive happiness" according to Hartmann "humanity has finally seen the *folly* of its endeavour; it finally foregoes all *positive* happiness, and longs only for *absolute painlessness*, for nothingness, Nirvana. But not, as before,

this or that man, but man*kind* longs for nothingness, for annihilation" (p. 291).

We can only add in conclusion that Dr Wenley has presented a very repulsive topic in a very attractive form.

T. W. Levin.

The Ethics of Hegel. Translated Selections from his Rechts-Philosophie, with an Introduction. By J. Macbride Sherrett, D.D., Professor of Philosophy in the Columbian University, Washington, D. C. Boston: Ginn & Co., 1893. Pp. xii., 216.

This volume is one of a series, each of which is to contain extracts from the ethical writings of some philosopher. It is said in the preface that undergraduates have no time to study more than one ethical system in detail, and that selections are better than text-books. Even if we assume that it is better they should study several systems slightly rather than one thoroughly, the conclusion seems doubtful. A good exposition by a commentator may be a coherent whole, but fragments of an author's work can scarcely be coherent, unless his system in full was confused. If there is any method in his writings they must be mutilated by such treatment.

Hegel's system, to which method is the breath of life, is particularly unsuitable for presentation in extracts. And his Ethics are also almost incapable of separate treatment. They depend so absolutely on his metaphysics, and they are so devoid of independent reality as against the higher stages of Spirit, in which they are transcended and lost, that a separate treatise on them can scarcely explain the real view which Hegel took of them.

Dr Sherrett's introduction is clear and sympathetic, though a tendency may be noticed in it to emphasize, perhaps rather rudely, the somewhat shadowy connection between Hegel and orthodoxy. For example (p. 24), we find the transition from logic to Nature identified with creation by God. Hegel's account of it is no doubt obscure. But it seems clear that the freedom which he attributes to the Idea in it does not imply that the Idea could have refrained from the advance, nor that the worlds of Nature and Spirit are to be looked on as derivative, while the Idea is to be regarded as ultimate and independent. And in this case, creation seems an ambiguous phrase. Again, the identification of God with the Idea alone seems unjustified. For Hegel says (Enc. Section 1) that "God, and God only, is the truth," and he would scarcely have been prepared to deny truth to the world of Spirit, and to confine it to the Logic.

The statement (p. 34) that crime is "a step backward" seems to be more edifying than Hegelian. The conception of a step backward is one which can find no place in the dialectic method. Crime is no doubt a negative stage of the dialectic, but the negation is never lower than that which it negates, and must even be considered as higher, in those later stages of the process in which transition is merged in reflection and development.

Philosophical Remains of G. C. Robertson. *With a Memoir.* Edited by Alexander Bain, LL.D. and T. Whittaker, B.A. London: Williams and Norgate, 1894. Pp. xxiv., 481.

"The present volume contains a collection of the more important philosophical writings of the late Prof. Croom Robertson. Outside this work, besides his volume on Hobbes, there remain his historical articles in the *Encyclopaedia Britannica* on Abelard and Hobbes, his biographies of

the Grotes in the *Dictionary of National Biography* (George Grote, his wife and two brothers—John and Arthur) and other minor contributions to various periodicals." The papers here reprinted possess very varying degrees of interest. Among the most important are,—the admirable exposition of the part played by the social factor in the development of our mental life, which is entitled "*How we come by our Knowledge*,"—the articles on *Analysis, Axioms, and Association of Ideas*, which first appeared in the *Encyclopaedia Britannica*; those on *The Physical Basis of Mind*, on *Psychology and Philosophy* and the highly suggestive note on the *Psychological Theory of Extension*, which are taken from the pages of *Mind*.

The Theory of Inference. By the Rev. Henry Hughes, M.A. Kegan Paul, Trench, Trübner, and Co., 1894. Pp. xv., 256.

A criticism of Mill's logical doctrines, intended to show that Induction and Deduction, though the only kinds of inference which are appropriate to the field of natural law, are unequal to the work of drawing conclusions about real and concrete things. In the field of history another kind, Illation, is necessary. Critical notice will follow.

Kant's Inaugural Dissertation of 1770. Translated into English, with an Introduction and Discussion, by W. J. Eckoff, Ph.D., Professor of Philosophy and Psychology in the University of Colorado. Columbia College, N.Y., 1894. Pp. xi., 101.

The translation is likely to prove useful, though it might be considerably improved by a careful revision. The Introduction and Discussion are without value. Dr Eckoff is apparently ignorant, to an inexcusable degree, of what has been written by others concerning Kant's philosophical development. His own contribution to the subject presents the appearance of being a series of rough notes taken down for his own use while reading Kant's precritical writings. He has an abominable trick of giving a paraphrase or quasi-quotations in *oratio recta* but without quotation marks, so that the reader has constantly to pause and consider whether the pronouns in the first person stand for Kant or for himself.

F. H. Jacobi. A Study in the Origin of German Realism. By Norman Wilde, Ph.D. Columbia College, N.Y., 1894. Pp. 77.

This study may be regarded as a supplement to M. Levy Brühl's more pretentious work (cf. P. 567 of this No.). Dr Wilde treats of the "Formative Influences" which moulded Jacobi's thought, and gives a systematic analysis of his doctrine. The critical and polemical relations of Jacobi to Mendelssohn, Kant, and later thinkers, do not come within the scope of his work. Mr Wilde evidently knows his subjects and his style is clear and attractive.

Bibliothèque de Philosophie Contemporaine. Auguste Comte et Herbert Spencer. Contribution à l'histoire des Idées Philosophiques au xix^e^ Siècle. Par E. De Roberty. Paris: Félix Alcan, 1894. Pp. 200.

In this dissertation M. E. De Roberty endeavours to portray in broad outline the most salient features of contemporary speculative philosophy. The ultra-positive scientific character of the age reposes on a latent hypothetical cosmology which philosophy endeavours to formulate, and to

construe to human intelligence. The outcome of this intellectual activity our author thinks may be summed up as Monism tempered by Agnosticism. With the latter M. De Roberty has already dealt in a previous essay.[1] He proposes now to examine and elucidate in Book I. of this work "The problem of Monism in the philosophy of the present age," in Book II. "The Monism of Auguste Comte," in Book III. "The Monism of Herbert Spencer." In Book I. there is an attempt at an historic evolution of the conception of unity with which most readers of philosophy are tolerably familiar. The one and the many, unity and plurality, have been, as M. De Roberty tells us, respectively the soul and the body of philosophy in all stages of speculation. Monism or the principle of unity has assumed various guises; it has clothed itself in theism—in another age it has been the foundation of Metaphysic—to-day it calls itself Evolution. In each phase the human intellect seems impelled to the grand postulate or hypothesis of a single substance materialising, pervading and organizing all nature. This is Monism, an intellectual necessity—a scientific datum—an emotional craving.

From pages 45 to 134 are discussed the doctrines of Auguste Comte. Positivism, M. De Roberty thinks, is destined to live as a method, but to perish as a creed. Comte, he complains, like Kant has sacrificed Logic to Ethic, the pure to the practical reason. The Monism of Comte is a chimera, the solidarity of human society, formulated as the science of sociology. M. De Roberty is an ultra-nominalist and only believes in plurality. He thinks that Comte's adoption of any monistic theory is inconsistent with positivism. Unity is only a symbol, a mere abridged abstraction of concrete reality, which must be always plural. The conception of abstract humanity M. De Roberty holds is a survival of the obsolete anthropomorphism which has haunted philosophy from the earliest ages.—M. De Roberty's scrutiny of Herbert Spencer's system is somewhat minute but altogether destructive. The Spencerian ontology is a monistic theory of being depending for its validity on a psychology and epistemology formulated in five essential points.

1. The ultimate criterion of truth or reality, the inconceivability of incompatibles, "l'inconceivabilité du contraire simultané" (p. 138). M. De Roberty disposes of this principle as a mere logical quibble with no objective force.

2. The classification of the phenomena of consciousness as external and internal states. Of course our author has no difficulty in demonstrating that this distinction is a flagrant *petitio principii*, "une criante pétition de principe" (p. 142).

3. The hypothesis of a *tertium quid* in which subject and object are identified. Again, says M. De Roberty, a mere logical illusion in which two species are gathered up as it were in a genus "la généralité ou identité de genre" (p. 145).

4. The hypothesis of a "transconscient" mode of being which generates the object primarily, which again in its turn generates the subject, so that an unknown whole manifests itself as the envelope of the object, which is again the envelope of the subject. This M. De Roberty finds is only an illicit derivation of the concrete from the abstract.

5. A classification of the phenomena of consciousness as successive and contemporaneous states, which constitute our apprehension of time and space. These two species of mental phases resolve themselves finally into that unity which is on the one side a mode of knowing, on the other a mode of being.

[1] Agnosticisme.

M. de Roberty accuses Spencer's method of deducing the concrete from the abstract and then making the former a proof of the reality of the latter. But the kernel of Spencer's Monism is the conception of organic unity, and this M. De Roberty leaves unattacked.

T. W. LEVIN.

La Psychologie de l'Amour. Par GASTON DANVILLE, Paris: Félix Alcan, 1894. Pp. iii., 169.

Love is the systematic direction of the sexual instinct to one person of the opposite sex to the absolute exclusion of all others. The main psychological difficulty connected with it is the apparent absence of adequate motive for the exclusive selection of the special object. This distinguishes the passion of love in the proper sense of the word from the relative systematisation of the sexual impulse, produced by its union with other specific tendencies, such as friendship, esteem, vanity, and sympathy. Relative systematisation of this kind is more common than love in the narrower sense, and the two are frequently confused. But the grand passion is unmistakeably marked off by distinctive features. Apart from the apparent want of motive for its absolutely exclusive selection of the special object, the experience of lovers bears witness to the perfectly unique nature of the emotion. It is indescribable, because it is like nothing else. Moreover it is sometimes not merely without assignable basis in ordinary interests, but actually opposed to such interests; and when this is the case, it overbears in its headlong career all considerations of worldly prudence and of morality, often leading to the extremes of folly and crime. This and some other of its features seem to indicate that it is a pathological state, to be classed as obsession by the fixed idea. This view is rejected by M. Danville. He thinks that he can trace the genesis of the passion in the normal course of phylogenetic evolution, and he thinks that it is distinguished from the various forms of insanity by being in its general tendency useful rather than harmful to the individual and to the race. There is no sufficient proof of the last point and the first is treated in a somewhat vague and unsatisfactory way. His account of the psychological genesis of love in the individual is given in a few pages at the close of the volume. The basis of his explanation is the association of the excitement of the sexual instinct with accompanying experiences of our ordinary mental life. This association gives to these experiences a special quality which forms a rallying point of community leading to their union in a systematic synthesis. The product of this synthesis remains unconscious until it is excited from without by some person of the opposite sex who excites experiences which conform to it and blend with it. Thus all 'falling in love' is the sudden realisation of an unconscious and unconsciously formed idea. "Every normal adult possesses without knowing it this unconscious synthesis, which merely represents a latent power of virtual love." M. Danville may at least claim the credit of having fully realised the nature and difficulties of his problem. His proposed solution is probably on the right lines, but it is obscurely expressed, and in any case a much more detailed analysis is required than he has supplied.

Philosophie moral et politique. Études par J.-E. ALAUX, Prof. de Faculté, Prof. de Philosophie à l'École des Lettres d'Alger. Paris: Félix Alcan, 1893. Pp. 409.

Lucidly written and printed in large type, these 'studies' are for the most part reprinted essays, articles, lectures and addresses, the first two

or three on moral and aesthetic philosophy, the remainder on questions of applied ethics. The philosophic standpoint is Intuitionalist; the religious attitude is Theistic. The first essay, 'Des Variations de la Morale' is an attempt to detect the fundamental unity of the moral principle underlying the profound differences, amounting to logical contrariety, between the positive moralities of different times and places. In the schools there are still three points of controversy: Is morality independent? What is the sanction of morality? What is the Good? In practice the Good has always been the one aim. But ultimately *le bien c'est le bien vouloir*, however greatly, through commission or omission, through ignorance and weakness, the collective good will has erred in seeking the Good. Or rather Goods: progress has been from war to peace, from slavery to liberty, from privilege to equality, from despotism to justice. The second essay, 'La Moralité spiritualiste,' deplores the fact that philosophy, once the handmaid of theology, should have exchanged her office, not for liberty, but for the service of science, a harder yoke *et d'une moins grande dame*, and holds, that, while philosophy and science have need each of the other, the 'moral idea' is the absolute *inconcussum quid* of philosophy, where it must cry halt to science, just as imperiously as science forbids philosophy to hold hypotheses contrary to its laws.

Pour et contre l'Enseignement Philosophique. Extrait de la Revue Bleue. Paris: Félix Alcan, 1894. Pp. 178.

Some recent changes proposed in the curriculum of study pursued in the Universities and the Higher Schools of France, seem to have aroused a controversy amongst those interested in educational matters which found vent in a series of articles and letters appearing in the well-known periodical *La Revue Bleue* during the spring of the present year.

The reform in question touched the abolition or curtailment of the special course of philosophical reading which constitutes the work of pupils during the final year of their academical career. This philosophical course is made up of Psychology, Logic, Metaphysic and Ethic, concluding with the general history of Philosophy.

The feeling awakened by the attempt to modify the period allotted to the study of philosophy under these four divisions has naturally expressed itself in favour of, or against, the utility of philosophy as a special branch of education.

M. Vandérem has led off and wound up the polemic, the principal contributions to which are collected by him and comprised in the tract before us.

M. Vandérem tells us in his prologue how the plan of higher education adopted in France, had been framed on the lines laid down by the Jesuits in the 17th and 18th centuries (p. 4). Their practice was to devote nine years to instruction in the usual subjects of a liberal training, languages, rhetoric, geometry &c. During this period the speculative topics which philosophy is supposed especially to embrace were most rigidly excluded from the notice of the pupils, and all discussion of them was sternly prohibited. On entering the 10th year of study, however, this bann was withdrawn, the veil was lifted and suddenly without any previous preparation the student found himself in an unaccustomed atmosphere charged with recondite problems and the sublime mysteries of life and mind, the destiny of man and the ultimate foundations of morality. Such questions were presented to a class of bewildered pupils who were expected to gallop through a course of so-called philosophy in one year—to scale under the perfunctory guidance of unsympathetic Professors, heights which the most

powerful intellects had been unable to surmount in twenty centuries. It is against this degradation of philosophy, this waste of time, expended in the attempt to convert unsophisticated youths into Cynics and Sceptics that M. Vandérem protests, although we do not quite gather from his utterances whether it is the absolute teaching of philosophy as an element of education to which he objects or only the inadequacy of the method in which it is taught. Succeeding the introduction of M. Vandérem we have thirteen letters from men of light and leading in the philosophical and educational world of France, amongst whom we recognize such names as Ribot, Janet, Fouillée, H. Taine, &c.

M. Ribot completely concurs with M. Vandérem's strictures on the existing mode of teaching philosophy, judging as he says from results which are brought under his notice as Examiner. He thinks the Professor whilst teaching should take more account of the capacity of his audience and not soar suddenly into too rarefied an atmosphere.

M. Janet traverses the allegations of M. Vandérem with regard to (1) the results, (2) the matter, (3) the manner of the teaching of philosophy hitherto in vogue in the higher schools of France. His attitude is purely defensive and he scarcely does more than parry the attacks of his adversary. He points to many distinguished contemporaries (p. 42) who are noted in every department of practical life although they have undergone during their youthful career the disabling ordeal of the class of philosophy. He endeavours to show that a disbelief in the existence of matter is a wholesome antidote to the positive proclivities of the age, and he answers the complaint of the undue disparity between the teaching of the professor and the capacity of the pupils by urging that nothing is more fascinating to the young than the mysterious and semi-intelligible.

M. Fouillée, pp. 57 to 81, advocates the retention of a special class for Philosophy, principally as a corrective to the tendency of a democratic age to exclusively technical training. Men require to be citizens as well as engineers, chemists, lawyers, &c., and only a course of philosophy can remind youths that human life is not governed entirely by steam and electricity.

M. Fouillée recommends Professors to dwell more on the harmony than on the antagonism of the various schools of philosophy and to encourage the constructive rather than the critical faculty of his class. M. Fouillée concludes his paper by an elaborate syllabus containing sixty-one topics to be discussed by a model Class of Philosophy.

A letter of the late M. Taine cited by an anonymous contributor (p. 162) insists very strongly on the danger of dissipation in philosophical reading. For a beginner in philosophy he says eclecticism is worse than useless. Master one system, it matters not which, but master it in its entirety, and so the study of philosophy is a splendid gymnastic. M. Vandérem in his summing up (p. 164) claims to have established with the concurrence of the highest authorities that the philosophical course existing in the public schools and universities of France must be ended or mended. We should say that in our opinion the testimony in his favour is not quite so overwhelming as he would have us believe.

In fact we cannot find one of the correspondents who grants him an unqualified adhesion. The whole question is that of the growing claims of the new learning to take the place of the old. What the age requires is a new "Instauratio Magna." But such a work must not be undertaken by a specialist, a sciolist, or a journalist.

T. W. Levin.

Spinoza. Par LÉON BRUNSCHVICG, Professeur agrégé de philosophie au lycée de Tours. Paris: Félix Alcan, 1894. Pp. 224.

This is purely an exposition of the philosophy of Spinoza from Spinoza's own standpoint, without any attempt to criticise him, or to recast his thoughts in a modern form. As a mere restatement of Spinozism it has remarkable merit. It is written throughout in lucid and graceful French; it is admirably arranged, and it is based on profound and intimate knowledge of Spinoza's text. The ethical and religious motive is given its due place from the outset, as the key to the whole system, and the inestimable value of Spinoza's practical teaching is set in a clear light. Though the work is a mere restatement, it nevertheless obviates by implication many current objections to the doctrines expounded. Indeed we may say that all difficulties which are merely based on misunderstanding, are here disposed of purely by the clearness and completeness of the exposition. The account of Spinoza's theory of knowledge, in Chapter II. on Method, is especially good, and its significance is again brought out at the close in Ch. VII. on Eternity. Ch. V. on Passion, is remarkable as containing a really successful statement of the psychological details of Spinoza's theory of the emotions. The intellectual love of God, and the doctrine of the eternity of the soul, are extremely well treated. Finally, the story of Spinoza's life is told at the end of the book in a most interesting manner, so as to exhibit it as a practical embodiment of his philosophy.

L'Année Philosophique. Publiée sous la direction de F. PILLON, Quatrième Année, 1893. Paris: Félix Alcan. Pp. 316.

This fourth number contains three important articles: (1) "A philosophical study of the doctrine of Jesus," by M. Renouvier; (2) "God according to the 'Néo-Criticisme,'" by M. Dauriac; "The Evolution of Idealism in the Eighteenth Century," by M. Pillon.

Of these the longest and perhaps the most interesting is M. Pillon's contribution, which treats in a very thorough and systematic way of Malebranche and his Critics. Malebranche is represented as being the founder of Eighteenth Century Idealism. He was only debarred by theological considerations from a full anticipation of the doctrine of Berkeley.

The Revue Bibliographique includes notices of all books of any degree of importance bearing on philosophy, which have appeared during 1893. Fuller notice follows in due course.

Le sentiment et la pensée, et leurs principaux aspects physiologiques. Par A. GODFERNEAUX, Docteur ès Lettres. Paris: Félix Alcan, 1894. Pp. xi., 224.

'Le sentiment,' or the emotional side of mental life, coincides, for M. Godfernaux, with the conative. All emotion has, according to him, its physiological correlative in the repression or liberation of organic tendencies to movement. The general purport of his book is to show the dependence of what he calls Association of Ideas, on motor tendencies, and the corresponding emotional states. Much space is devoted to illustration of this point, by reference to the phenomena of mental disease,—of mania, melancholia, hypochondria, ecstasy, and chronic delirium. On the whole, this part of his work is good and suggestive, but his statement that, in mania, thought exists in detachment from emotion, and that, in melancholia, emotion exists in detachment from thought, breaks down when confronted with the facts as he himself states them. M. Godfernaux

next follows up the clue furnished by his examination of morbid phenomena, in an analysis of the relation between thought and emotion in normal mental life. Here, too, he is largely successful in sustaining his general thesis. The book is certainly worth reading.

La Philosophie de Jacobi. Par L. Lévy-Bruhl, Professeur au Lycée Louis-le-Grand et à l'École libre des sciences politiques. Paris: Félix Alcan, 1894. Pp. xxxviii., 263.

This book is extremely well written and extremely interesting. The philosophy of Jacobi is in its essence a protest against the possibility of all philosophy. Its cardinal principle is that real existence must be immediately apprehended through feeling, sentiment or instinct, and that the whole function of the understanding consists in analysing and generalising data supplied to it by the senses or by the 'heart.' Knowledge of God and freedom is knowledge through the emotions. To attempt to deduce these fundamental verities by ratiocination, is, from the nature of the case, to deny them. To explain a thing is to assign the conditions of its existence; but God and freedom are unconditioned realities. The real interest of Jacobi's philosophical activity lies in his critical and polemical attitude to the various systems which succeeded each other in Germany, during his long life of seventy-six years. He argues throughout to support his own foregone conclusions, treating with uncompromising hostility all doctrines which denied freedom and the personality of God, or which attempted to base these tenets on any other foundation than that of immediate experience. His first controversy was directed against Moses Mendelssohn. This discussion formed a turning-point in the history of philosophy in Germany, by bringing into prominence the system of Spinoza, which afterwards combined with that of Kant to generate the philosophies of Fichte, Schelling, and Hegel. Jacobi urged that all philosophy which is true to itself must end in Spinozism, i.e. the explanation of the Universe through the principle of logical identity. He put forward this thesis as an *argumentum ad hominem*, intending to intimidate his opponents by shewing the nature of the confusions to which their procedure legitimately led. But what he succeeded in effecting was the precise opposite of this. He gave a great impetus to the study of Spinoza, which resulted in an enthusiastic appreciation of the Spinozistic method and teaching, and influenced the subsequent course of speculation in a way directly opposed to Jacobi's tendencies.

Jacobi's criticism of Kant is well-known. It has the great merit of having been among the very first to discern the important significance of Kant's work, and it has also the merit of having detected with singular insight its weak points, both in the theoretical and practical sphere. The objections against the doctrine of things-in-themselves, and against the formalism of the categorical imperative, which are now generally regarded as unanswerable, were clearly and distinctly stated by Jacobi. His criticism of Fichte is of less importance, as it consists mainly in a reiteration of what he had already urged against Mendelssohn. Schelling he appears to have totally misunderstood. The romantic school represented by Schleiermacher and the Schlegels had many points of positive affinity with him; but his own feeling towards the romanticists seems to have been mainly one of antipathy. They appeared to him to be too frivolous, making the most sacred interests merely subject-matter for the play of fancy. On the whole Jacobi appears to have become more rigid and intolerant as he got older: in his early days he could feel admiration and affection for Spinoza, emphasising the essentially religious sentiment

which underlay what in Jacobi's view was formally atheism. But in the close of his life he seems to have lost this power of sympathetic discrimination, and to have felt nothing but resentment and repugnance for all writers who denied or ignored the personality of God. He thus became isolated from all but the immediate circle of his personal admirers, finding little in contemporary thought that was not odious and repugnant to his deepest sentiments and convictions.

L'Idée du Phénomène. Par ÉMILE BOIRAC, Professeur de Philosophie au Lycée Condorcet, Docteur ès Lettres. Paris: Félix Alcan, 1894. Pp. 347.

In this "analytical and critical study," M. Boirac tracks the notion of phenomenon, successor to substance and fundamental idea of contemporary philosophy, through the several systems; examines the *realist* conception of it as *appearance*, the *idealist* conception of it as *representation*, and the *positivist* conception of it as *change* (pp. 10—11),—to land eventually for himself in a species of "reformed Leibnizianism" (p. 344), conceiving "phenomenon and substance as inseparable because they are the two complementary, correlative aspects under which all real existence appears to us and to itself" (pp. 345—6). He realizes and clearly states the three great difficulties in the way of Monism, the duality of phenomenon and being, the duality of movement and thought, of matter and mind, and the multiplicity of individual consciousnesses; and while claiming by the present criticism to have helped to get rid of the two first, leaves the third,—the reconciliation of the multiplicity of individual subjects with the unity of the universal subject—as the problem for the metaphysics of the future.

Les lois psychologiques de l'évolution des peuples. Par GUSTAVE LE BON. Paris: F. Alcan, 1894. Pp. 176.

The first of the four books into which this work is divided treats of the psychological characters of races. The thesis propounded is that though a race is to a large extent capable of mental modification at different periods of its existence, yet that these fluctuations are only transient and that they are confined within fixed limits by certain fundamental psychological characteristics which are transmitted by heredity. This position is supported partly by evidence adduced in this volume, partly by reference to previous works of the author. He appears to us to lay too much stress on physiological heredity as distinguished from social inheritance in his account of the continuity of the "soul" of a race from generation to generation. He also sets up an abstract antithesis between character and intelligence which will not, we think, sustain critical scrutiny. He thinks that what is of paramount importance in the racial soul are practical rather than theoretical aptitudes and tendencies. Thus in his fourth book, which deals with the decline and fall of civilisations, he chiefly emphasises the moral decay which makes an overcivilised people an easy prey to robuster races far inferior in intelligence but animated and guided by enthusiasm for "ideas." The truth is that M. le Bon is here measuring intelligence and character by disparate standards. He estimates intelligence merely by the variety and complexity of intellectual life, whereas he estimates character merely by its unity and consistency. The second book shows that religions and arts are never simply transmitted from one nation to another; they always suffer radical transformation in the process. The third book investigates the leading conditions which modify the psychological characters of races. The respective influence of ideas, of religious beliefs, and of "great men"

is examined. The religious factor is regarded as most important; but the writer appears to give a very wide application to the word religion; he says that the French revolution was dominated by a religious ideal. In discussing the rôle of great men he contrasts the discoverers of genius who advance civilisation with the "fanatics and the victims of hallucination" who "create history." The fourth book we have already referred to. It contains an interesting discussion of the social condition of modern Europe. M. le Bon thinks that the Latin races are in desperate case, and that the Germans are no better off. They are rushing headlong to socialism which is ruin. England and the United States are in a better position. But the future of the world rests with Russia. In conclusion we must add that the book is full of interest from beginning to end, though its value is somewhat marred by the French tendency to follow a one-sided idea blindly and exclusively, where an Englishman would "hedge" and a German would seek a "higher synthesis."

Die Anfänge der Kunst. Von ERNST GROSSE, Dr. Phil. Freiburg i. B. und Leipzig: J. C. B. Mohr, 1894. Pp. vii., 301.

This is a work of great interest and value both for the psychologist and the student of aesthetics. It contains a careful examination of the artistic culture of those races which subsist purely by hunting, and by collection of vegetable products,—the natives of Australia, the Andaman Islanders, the Bushmen, the Eskimo, and the Fuegians. With the exception of architecture, all the forms of art which are current among the most civilised peoples appear also among these most primitive races. Cosmetic or personal adornment, decorative art, picture-making and carving, dancing, poetry (lyric, epic, and dramatic), and music, are everywhere clearly and distinctly traceable. It would thus appear that the art impulse is a common possession of the whole human race. A further point which is well brought out in the volume, is the remarkable uniformity of character which pervades the artistic activity of peoples so widely distinct in racial character, and without communication with each other. Except in the case of music, this uniformity is traceable to the common conditions to which all are subject, inasmuch as their subsistence depends upon the chase. The general direction of their activity, as determined by the form in which the fundamental practical need of finding food takes shape, dominates their whole circle of ideas and interests. This is most conspicuously seen, on the artistic side, in their painting and graving. Their pictures consist almost entirely in life-like reproductions of animals and men; they reproduce accurately what by the conditions of their existence they are forced to observe accurately; and the technical skill they display has its propaedeutic in the acquisition of manual dexterity required for the making of weapons effective in the chase.

The same fundamental aesthetic principles of rhythm, symmetry, contrast, gradation, and harmony, which regulate the productions of civilized art, are equally traceable in that of the lowest savages. In these points the Bushmen and Eskimo are at one with the Athenians and Florentines. In view of this fundamental agreement the differences between primitive and developed forms of art seem rather quantitative than qualitative. "The sensibilities manifest in primitive art are more crude and circumscribed: its materials are scantier, its forms are poorer and coarser; but in its essential motives, means, and ends, the primaeval art is one with the art of all ages."

What relation does the artistic activity of primitive peoples bear to the practical exigencies of the struggle for existence? It might be sup-

posed at the first blush that the diversion of energy in the direction of mere play ought to be a practical disadvantage, but Dr Grosse clearly shews that this is a mistake. Decorative art promotes technical skill; personal adornment and dancing play an important part in the intercourse of the sexes, and so tend to the improvement of the breed. Poetry, dancing and music inspire combatants with ardour and courage, and so increase the strength of the resistance presented by a social group to hostile attacks. But the most weighty and beneficial influence exercised by art on practical life, consists in the strengthening and extension of social cohesion. Dancing and poetry are best adapted for this purpose, and in primitive states of society it is dancing which does most to bind society together. Hence we find that primitive dances are highly developed and elaborate, so that our performances in this line appear by comparison to be imperfect survivals analogous to rudimentary organs. What sculpture was to the Greeks, architecture in the middle ages, painting in the Renaissance, and poetry in the Europe of to-day, such is dancing to the Australian aborigine,—an embodiment of the social ideal. It is worth noting that this practical usefulness of primitive art depends on its being pursued for its own sake, and not for ulterior ends. Art must first be art before it can be anything else, and it must therefore in the first instance seek only its own realisation.

Psychiatrie für Aerzte und Studierende. Von TH. ZIEHEN. Berlin: Friedrich Wreden, 1894. Pp. ix, 470.

This text-book has at least two features of distinct interest. It commences with a psychological description of the symptoms of insanity in which the author follows the thoroughgoing association psychology adopted in his *Leitfaden der physiologischen Psychologie.* Although one may disagree with his doctrines, it must be acknowledged that they become in Prof. Ziehen's hands the basis of a clear and consistent account of morbid mental states.

The second feature of interest is the classification, which differs considerably in one point from that ordinarily adopted in Great Britain, where nearly all cases of acute insanity are grouped together under the heading of mania. Most of these would by Prof. Ziehen be regarded as cases of paranoia, the cognitive side of mental life being the one primarily and chiefly affected, while he would restrict the term 'mania' to a condition, the opposite of melancholia, in which the chief change is an increase in the pleasurable feeling tone of mental states. Paranoia may be acute or chronic, with two main varieties according to the predominance of sensory phenomena such as hallucinations, or ideational phenomena, as delusions and incoherence.

The other sections contain much that is interesting and original, and the book as a whole is a valuable contribution to the systematisation of our knowledge of mental pathology.

Ueber Zeit und Raum. [*Philosophische Vorträge herausgegeben von der philosophischen Gesellschaft zu Berlin.* III. Folge. 1 Heft.] Von PROFESSOR Dr. A. DÖRING. R. Gaertner, Berlin, 1894. Pp. 41.

Space and time are not subjective forms as Kant held. They are as truly constituents of the object as are the things and processes to which we attribute spatial and temporal predicates. What distinguishes them from other ingredients entering into the constitution of the world is that they stand outside the relation of agent to patient. Professor Döring expresses

this by saying that though they are real they are not actual (wirklich). To be actual is to be *operative*,—to be in some sense an agency. But space and time are immobile conditions, neither suffering nor producing change. They cannot properly be said to produce anything. But on the other hand they are the *real* (not merely the *logical*) conditions of all processes and of all products. This is Dr Döring's general point of view. His application of it in the elucidation of special points is interesting and instructive. From analysis of the general characters of actual existence in time and space, he deduces the general characters of time and space themselves, inasmuch as they condition whatever is temporal or spatial.

Die Gotteslehre des Gregor von Nyssa. Von Dr. W. Meyer. Leipzig: Gustav Fock, 1894. Pp. 38.

Gregory, whose date is 331—394, is treated by Dr Meyer as a typical example of the blending of Christian faith with Greek Philosophy and especially with Neoplatonism. "The same man, who, *quâ* philosopher, accentuates the Conception of God as pure being, infinite and absolute, quâ Christian clings to the personality of the divine being with all the fibres of his heart." As the child of an uncritical age, he failed to feel the incompatibility of these antithetic points of view. Of course this was only possible because the metaphysical element in his thought took the form of mysticism.

Dzieje Filosofii w zarysie. A Sketch of the History of Philosophy. By Dr. Maurice Straszewski, Professor in the Jagellonian University. Vol. i. Pp. 411.

This is to be the first of five volumes; it contains a general introduction to the history of Philosophy, and an account of the development of speculative thought in India, China, Egypt and Western Asia. The second will be devoted to philosophy in Greece, the third to Mediaeval scholasticism, and the two last to modern philosophy. In the present work the author names a good many English writers whose researches and translations have been of use to him, especially as concerns the chapters about India (Muir, Haig, Monier Williams, Ballantyne, Colebrooke, Davies and others). The book is written with much care and completeness, and it is a pity that not one Englishman out of ten thousand will be able to judge for himself what good use Prof. Straszewski has made of his numerous English sources.

Received also:—

J. Seth, *A Study of Ethical Principles*, Edinburgh and London, William Blackwood and Sons, 1894, pp. xvi., 460.

F. Martin, *La Perception Extérieure et la Science Positive*, Paris, Félix Alcan, 1894, pp. 305.

J. Rehmke, *Lehrbuch der allgemeinen Psychologie*, Hamburg und Leipzig, Leopold Voss, 1894, pp. 582.

A. Bastian, *Controversen in der Ethnologie*, IV, Fragestellungen der Final-ursachen, Berlin, Weidmannsche Buchhandlung, 1894, pp. x., 317.

G. Glogau, *Die Hauptlehren der Logik und Wissenschaftslehre*, Kiel und Leipzig, Lipsius und Tischer, 1894, pp. xvi., 190.

E. Fechner, *John Locke's "Gedanken über Erziehung,"* Wien, Alfred Hölder, 1894, pp. 43.

G. Heymans, *Die Gesetze und Elemente des wissenschaftlichen Denkens*, Bd. II., Leiden, S. C. Van Doesburgh, Leipzig, Otto Harrassowitz, 1894, pp. 478 (mit Bd. I.).

J. Baumann, *Die grundlegenden Thatsachen zu einer wissenschaftlichen Welt- und Lebensansicht*, Stuttgart, Paul Neff, 1894, pp. 135.

K. A. Leimbach, *Untersuchungen über die verschiedenen Moralsysteme*, Fulda, Fuldaer Actiendruckerei, 1894, pp. viii., 125.

R. Steiner, *Die Philosophie der Freiheit*, Berlin, Emil Felber, 1894, pp. 242.

M. Heinze, *Vorlesungen Kants über Metaphysik aus drei Semestern*, No. vi., Leipzig, S. Hirzel, 1894, pp. 483—728.

G. Morando, *Lo Scetticismo e Gaetano Negri*, Milano, L. F. Cogliati, 1894, pp. 100.

S. Vignoli, *Peregrinazioni Psicologiche*, Milano, Ulrico Hoepli, 1895, pp. 404.

A. P. Mauro, *La Rivelazione dell' ente nell' atto del Giudizio dell' Essere suo*, Catania, C. Batliati, 1894, pp. 275.

IX.—PHILOSOPHICAL PERIODICALS.

PART XXVI. of the *Proceedings of the Society for Psychical Research* contains an address by the late President Mr A. J. Balfour, and an article by Professor Lodge on 'the difficulty of making crucial experiments as to the source of the extra or unusual Intelligence manifested in Trance-Speech, Automatic Writing and other states of apparent mental inactivity.' But nine-tenths of it is occupied by the Report of Prof. Sidgwick's Committee, formed in 1889 to conduct a statistical inquiry into the sensory hallucinations of the sane. This Report—which extends to nearly 400 pages—is divided into 17 chapters with several appendices. Chapters I—III. are occupied in explaining the point of view and method of the inquiry, and discussing the effects of possible sources of error in its results, which are given in a tabulated form. Then in Chapters IV—XI., the topics most likely to interest psychologists of the older and less adventurous type are discussed and illustrated: the distinction between hallucinations proper and either (*a*) illusions or (*b*) imperfectly externalised imaginations; the relation between hallucination and dreams; the influence on hallucinations of such conditions as age, sex, heredity, health, grief and anxiety, repose and abstraction, expectancy and suggestion. There is also some discussion of the Physiology of hallucinations, and of certain physical effects that sometimes accompany the phenomena. Finally, Chapters XII—XVII., treat—with very ample illustrations—of various classes of hallucinations that are held to suggest telepathy or some other "supernormal" cause: of these chapters the most important appear to be Chapters XII and XIII, which contain a close and full discussion of the question whether the number of recognised apparitions coinciding with the death of the persons that they represent can be reasonably accounted for by chance-coincidence, exaggeration, anxiety, &c.:—a question which here receives a decidedly negative answer.

In the *International Journal of Ethics* for July, Mr A. J. Balfour writes on 'Naturalism and Ethics.' He argues that the view of the Universe, to which a single and unqualified acceptance of the results of modern natural science leads, is hostile to the sentiments which morality requires: since in this view morality appears—like the "protective blotches on a beetle's back"—as merely an ingenious contrivance for maintaining in organic existence a particular portion of the living matter of an insignificant planet, for a comparatively brief period. The Rev. Langdon E. Stewardson depicts, with praiseworthy outspokenness, the bad 'effects of the clerical office upon character.' Professor Barzellotti writes on 'Religious sentiment and the moral problem in Italy.' The Rev. Hastings Rashdall gives a lucid and judicious discussion of the 'Limits of Casuistry,' answering the incidental attack on Casuistry in Mr Bradley's 'Principles of Logic.' There is also a hortatory discourse by Professor Knight on 'Practical Ethics,' and a rather dogmatic pronouncement on 'The Punishment of Children' by M. M. Mangasarian. In the 'Discussions' Mr Dickinson S. Miller makes an attempt—not uninteresting, though hardly successful—to determine 'the relations of "ought" and "is".'

THE PHILOSOPHICAL REVIEW. Vol. iii., no. 4. F. Thilly—The Freedom of the Will. [An acute article, written from the deterministic standpoint: might be improved upon the side of psychology.] A. L. Hodder—The Morality that Ought to Be. [On the obligation of doing as one pleases.] E. B. Titchener—Affective Attention. [Holds, as against Sully, that attention to pure pleasure-pain is impossible.] E. Adickes—German Kantian Bibliography. VIII. [Brings the work down to 1794.] Discussions. M. W. Calkins—A suggested Distribution in philosophical Terminology. [Use of I, i, Me and me, in the analysis of Fichte's *Wissenschaftslehre*: Fichte's equivocal Use of the Word *Bestimmen*.] G. A. Cogswell—Attention: is it original or derivative? [Explanation of attention, in terms of autogeny, as a fusion; criticism of Lange, Ribot, James, etc.] Reviews of Books. Summaries of Articles. Notices of New Books. Notes.

THE PSYCHOLOGICAL REVIEW. Vol. i., No. 4. A. Binet—Reverse Illusions of Orientation. [Observations. There are cases of inexact orientation (generally of an error of 180°), as distinct from normal orientation and disorientation. Explanation is at present impossible.] G. T. Ladd—Direct Control of the Retinal Field. [Voluntary control of the form assumed by the *Eigenlicht*. "Demonstration of the...power of the volition of the Ego to induce changes" in physical tissues.] J. Jastrow—Psychological Notes on Helen Keller. [Not very exact tests of memory, sensation, etc.; made principally at the World's Fair Laboratory.] J. M. Baldwin—Psychology Past and Present. [(1) Historical; (2) Method and Main Divisions of Experimental Psychology; (3) Exhibits in Psychology at Chicago; (4) Educational; (5) Psychology and Other Disciplines.] Discussions. G. T. Ladd—Is Psychology a Science? [Reply to James' review.] C. L. Franklin—The Bearing of the After-image. [Hess and Helmholtz.] Psychological Literature. Notes.

THE AMER. JOURNAL OF PSYCHOLOGY. Vol. vi., no. 3. F. B. Dresslar—Studies in the Psychology of Touch. [Touch in general. Education of the skin with the æsthesiometer. Experiments on open and filled space for touch. Illusion for weights. Minor observations.—Important; though often rather suggestive than conclusive.] A. E. Segsworth—On the Difference-sensibility for the Valuation of Space-distances with the Help of Arm-movements. [*Cf.* Wundt. *Phys. Psych.*, 4 Ed., i. p. 429.] E. B. Titchener—Minor Studies from the Cornell Laboratory, III.—V. R. Watanake—Two points in Reaction-time Experimentation. [Introspective control and cancelling of refractory times.] H. W. Knox—On the Quantitative Determination of an Optical Illusion. [Filled line is greater than open, within limits, by about 1/13.] M. F. Washburn; E. W. Scripture—Apparatus for Cutaneous Stimulation. E. W. Scripture—Accurate Work in Psychology; Some Psychological Illustrations of the Theorems of Bernouilli and Poisson. [Illustrations from Münsterberg.] J. A. Bergström—The Relation of the Interference to the Practice Effect of an Association. [Constant relation of equivalence. Persistence of associations. Influence of other factors.] Psychological Literature. [Digest of the recent optical illusion controversy in the *Zeitschrift*, etc. Notices of Ladd's *Psychology* and Külpe's *Grundriss*.] Letters.

EDUCATIONAL REVIEW. Vol. vii., Nos. 1—4, Vol. viii., No. 1 (Jan.—June, 1894). W. T. Harris—The Committee of Ten on Secondary Schools. [A summary and criticism of the unpublished Report of the Committee Interesting to us as pronouncing in favour of the retention of Latin and

Greek—"the spiritual clothes of the Romans and Greeks. To put on these gives us a power to understand our inherited forms in art, literature, and philosophy, in legal usages, and civil and corporate combinations.... I feel confident we shall enter on a new era of educational study with the publication of this Report."] J. W. Redway—The Status of Geography Teaching. [Reformation must begin with the reformer. The means of improvement are the normal schools and universities.] Prof. Laurie—Education at the University of Edinburgh. [The general result of the new regulations is that the theory, history, and art of education is admitted as one of the graduating subjects, and five months' practical work is compulsory before attainment of teachers' diploma.] Henri Marion—The study of education at the Sorbonne. [It is noteworthy that the professor of pedagogy is a specialist in philosophy—philosophy being the culmination of secondary studies.] P. W. Search—Individual teaching—the Pueblo plan. [An account of an interesting and important experiment; rather vague in detail.] F. Storr—Dr J. G. Fitch. ["A plain unvarnished tale, *sine ira aut studio, quorum causas procul habeo.*"] L. B. Evans—The South and its Problems. [A thoughtful contribution to the race problem. Equalisation impossible. Three possible courses:—amalgamation, extermination, colonisation.] H. W. Compton—A bit of psychology applied. [An appeal for the cultivation of the sense of beauty and aesthetic sense in domestic, civic, and national life.] C. C. Van Liew—A school journey. [Through the Harz Mts. A capital article.] R. G. Huling—History in Secondary Education. [Aim at development of insight and impulse to right action.]

Natural Science. Vol. iv., No. 25. C. Ll. Morgan—Instinct and Intelligence in Chicks and Ducklings. No. 28. E. B. Titchener—Some Current Problems in Experimental Psychology.

Physical Review. Vol. i., No. 4. J. S. Shearer—The effect of Temperature and of Electric Driving on the Period of Tuning-forks. No. 5. E. S. Ferry—The Use of the Rotating Sectored Disc in Photometry.

Nature. Vol. xlix., No. 1274. C. Ll. Morgan—The Scope of Psychophysiology.

The American Catholic Quarterly Review. Vol. xix., No. 75. E. A. Pace—The Growth and Spirit of Modern Psychology. [A thoughtful and well-written article.]

Revue Philosophique. No. 6. June. E. Durkheim—Les règles de la méthode sociologique (2me Article). [Deals with the distinction of the normal and the pathological. The first test of the normal is that it is general; this test, which is not infallible and does not hold good in periods of transition, may be controlled by referring what is general in a phenomenon to the general conditions of the collective life in the social type under consideration. Under these tests, crime is seen to be normal and not, as commonly supposed, pathological. The classification of societies must be according to their degree of complexity ("composition").] Binet et Henri—Les actions d'arrêt dans les phénomènes de la parole. [An account of psycho-physical experiments with the result that, in respect of the phenomena of articulation, "the modification of the activity of an organ can be effected with greater rapidity, consequently with greater ease, than the transition to a state of rest or from rest to movement."]

L. Weber—Sur les diverses acceptions du mot "loi" dans les Sciences et en métaphysique (fin). [Concludes the study of the diverse usages of the term law begun in the *Rev. Phil.* for May by an examination of psychological laws, and concludes that "What are called psychological laws, laws of succession and laws of systematization or of finality, have nothing in common with the character proper to physical laws, to wit that of universality conceived as necessary; and this radical difference has its source in the essential nature of the psychical phenomenon, which does not admit—without completely changing its character—of the application of the principle of integral repetition." There is nevertheless a true and fundamental psychological law; a universal and necessary proposition concerning the mental phenomena—which may be reached by adopting a compromise between the abstract and concrete. This is the principle of varying repetition (répétition altérante) with its corollary that there is a something in all mental phenomena that cannot be anticipated, in all future a certain element of absolute indetermination. Thus while for the physical phenomena, the law is that which determines them, for the psychical phenomena, the law is that which denies the determination.] Dr Pioger—Origines et conditions sociales de la moralité. [A Study of morality as arising out of social activity, of the collective life.] July. G. Séailles—La méthode philosophique de Renan. [Renan recalls metaphysics to its connexion with sciences, conceives the rôle of philosophy as a perpetual commentary on the facts given by Science; philosophy is in his eyes "l'intelligence ajoutée à la Science." For Renan, the science par excellence is history. His philosophical doctrine is an eclecticism compound of Kant minus the Critique of Pure Reason, Hegel minus the Logic, and A. Comte plus these residues.] E. Durkheim—Les règles de la méthode sociologique (3me Article). [Sociologists err in explaining social phenomena by reference to the end they serve. "When a social phenomenon is to be explained, the efficient cause which produces it and the function which it fulfils, must be investigated separately." II. The *cause* must be looked for not psychologically, in the nature of the individuals, but in the antecedent social facts. A society is more than the mere sum of individuals. "The *function* of a social fact must be sought in the relation it holds to some social end." III. "The first origin of all social process of any importance must be sought in the constitution of the internal social environment,"—an environment composed of things and of persons. The two most efficient conditions are the number of social units, or the *volume* of the society, and the degree of concentration of the mass, or the *dynamic density*. IV. The conception involved in these rules is one of social constraint, but as understood neither by Hobbes nor by Rousseau. Neither a social compact nor the nature of the individual, but the natural force of society—a something produced by the association, but other than the sum, of the individuals, is the source of this constraint.] Observations et Documents sur les Paramnesies. MM. Dugas, van Biervliet, Soury. Revue Générale. P. Tannery—La Théorie de la Connaissance Mathématique. Analyses etc. August. J. Delbœuf—L'ancienne et les nouvelles géométries. III. Les postulats réels de la géométrie euclidienne sont à la base des métagéométries. (Continued from the April number.) B. Bourdon—Influence de l'âge sur la mémoire immédiate. [Concludes from experiments that direct memory increases in strength a little from the ages of 8—20, the increase being principally from 8—14, and almost insensible from 14—20. That there is, if extreme cases only are tested, an undeniable concomitance between 'intelligence' and direct memory.—Psychology not sufficiently advanced for a more general determination of

the relations between memory and intelligence.] E. Durkheim—Les règles de la méthode sociologique (4me Article). Règles relatives à l'administration de la preuve. [I. The same effect has always the same cause. II. The method of concomitant variations the most efficient in sociology. III. Sociology essentially comparative. "A social fact of any complexity can only be explained by following its integral development through all the species of society." In conclusion, M. Durkheim claims for his method that it is independent alike of all philosophy and of all practical doctrine, and that it is objective—treats social facts as "things," and as "social things."] Analyses etc.

Revue de Métaphysique et de Morale. 2me Année, No. 4. H. Poincaré—Sur la nature du raisonnement mathématique. [The syllogism cannot yield new knowledge. Mathematical reasoning must therefore be of a radically different nature. According to M. Poincaré it consists in "demonstration by recurrence" or mathematical induction, which consists in proving that if a theorem holds good for $n-1$, it holds good for n. No serious attempt is made to show that this type of reasoning is the *sole* method of discovery in Mathematics. M. Poincaré seems to base its distinctive value on its implicitly containing an infinity of syllogisms. But if the syllogism yields absolutely no advance in knowledge, how can such advance be obtained by an unlimited series of syllogisms? We do not admit that the principle of syllogistic procedure or of any other logical process is mere identity.] G. Séailles—Renan: Dieu et la nature. [Expounds and criticises Renan's conception of a universal history to which all the sciences are partial contributions as a revelation of the being and nature of God.] G. Belot—L'utilitarisme et ses nouveaux critiques. [The "new critics" are certain modern sociologists. As against these M. Belot endeavours to show that ethical judgments in modern and in primitive societies are based on a more or less conscious estimate of the tendency of actions to promote social welfare. The method employed resembles that of Professor Sidgwick, though no reference is made to his work. Towards the close some excellent remarks are made on the relation of Utilitarianism to more metaphysical theories of Ethics.] P. Tannery—Sur le concept du Transfini. [The "Transfinite" is immeasurable. Repeated application of a unit of measurement will never exhaust it and its magnitude cannot be numerically expressed—not even by an infinite number. At the same time it forms a whole complete in itself with fixed beginning and end. M. Tannery thinks that the conception of the Transfinite yields a third alternative in the cosmological antinomies relating to space and time, and that this alternative may be the true one.] L. Brunschwieg et É. Halévy—L'Année philosophique, 1893. [After a short review of the work issued under this title by the neo-critical school, there follows an independent critical survey of the French philosophical literature of 1893, from the standpoint of the new metaphysical movement in France.]

Archives de Neurologie. Vol. xxviii., No. 89. M. Bandouin—La Psychologie expérimentale en Amérique. [Clark University.]

Philosophische Studien. Bd. x., Heft 1. W. Wundt—Ueber psychische Causalität und das Princip des psychophysischen Parallelismus. [(1) *Preliminary remarks on the concept of causation in natural science.* Criticism of Sigwart's views, and constructive exposition on the basis of the author's *Die physikalischen Axiome, etc.* (2) *The principle of psychophysical parallelism, empirically applied.* a. The ultimate elements of ideas are sensations, which depend upon physical processes for their origin,

and regularly coexist and are correlated with physical processes. β. Of the process of their composition into ideas and of the degree of intimacy of their interconnexion the parallelistic principle can say nothing. The only allowable conclusion from it is that a regular coexistence or sequence on one side corresponds to a similar one on the other. Our mode of apprehension of ideational forms, however, is always the product of a conscious process, as such altogether incomparable with any physical process, and so not physically explicable. γ. All ideas are evaluated. To this there is no analogon on the physical side; Spinoza is wrong. (3) *Materialistic Psychology.* Ziehen, Münsterberg, etc. (4) *Psychical Causation.* The three principles of pure actuality of occurrence, of creative synthesis, and of relative analysis. All psychical causality is perceptual (*anschaulich*), all physical conceptual (*begrifflich*); mental composition brings to light new mental properties, with specific evaluations; conscious analysis is always relative in result.—The meaning and value of experimental psychology. (A noteworthy paper: unfortunately too lengthy and too continuously reasoned to be adequately abstracted here.)] L. Lange—Ueber das Massprincip der Psychophysik und den Algorithmus der Empfindungsgrössen. [A theoretical article, written in 1886, but left unpublished in default of experimental verification. This, together with theoretical confirmation, has now been supplied by Merkel.] J. Merkel—Die Abhängigkeit zwischen Reiz und Empfindung. IV. [The relation-hypothesis and the difference-hypothesis. The logarithmic dependency between stimulus and sensation.] J. J. van Biervliet—Ueber den Einfluss der Geschwindigkeit des Pulses auf die Zeitdauer der Reactionszeit bei Schalleindrücken. [The time is lessened as the quickness of pulse increases.] Heft 2. G. F. Lipps—Untersuchungen über die Grundlagen der Mathematik. III. [Logical order and number.] J. Merkel—Die Abhängigkeit, etc. IV., cont. [The methods of doubled stimuli and of mean gradations. Results of other investigators: Münsterberg, Cattell and Fullerton, Stefanini. New experiments on sound measurement.] E. Meumann—Untersuchungen zur Psychologie und Aesthetik des Rhythmus. 1. [Theoretical preliminaries. Attempts at a general theory of rhythm. Contributions from the theory of music.—First part of a valuable and elaborate monograph. *Cf.* Bolton in *A. J. of Ps.*, vi. 2.] W. Jerusalem—Ein Beispiel von Association durch unbewusste Mittelglieder. W. Wundt—Sind die Mittelglieder einer mittelbaren Association bewusst oder unbewusst? [The intermediary is darkly perceived, not unconscious.—*Cf.* Smith in *Mind*, last no.] Heft 3. F. Kiesow—Beiträge zur physiologischen Psychologie des Geschmackssinnes. I. [The sensitive surfaces. The intensity of taste sensations: liminal values for salt, sweet, acid and bitter; local differences, laws of adaptation, etc.] J. Merkel—Die Abhängigkeit, etc. IV., cont. [New experiments, cont.] E. Meumann—Untersuchungen, etc. II. [Rhythm of the spoken verse. Beginnings of an experimental investigation of rhythm.] A. Wenzel—Beiträge zur Logik der Socialwirthschaftslehre. I. [Methodology. Position of the study in the hierarchy of the sciences.]

ZEITSCHR. FÜR PSYCH. U. PHYS. D. SINNESORG. Bd. vii., Heft 2 u. 3. H. von Helmholtz—Ueber den Ursprung der richtigen Deutung unserer Sinneseindrücke. [1. Expressions in man of a connate organisation are reflex movements and impulses; the latter taking on the two opposite forms of like and dislike. 2. In the formation of perceptions a principal part is played by inductive inferences, reached by an unconscious functioning of the memory. 3. It is doubtful whether any knowledge (*Kenntniss*) occurs in the sphere of adult ideation, which requires to be ac-

counted for in any other way.—*Cf.* the *Physiol. Optik*, § 26.] F. Hillebrand —Das Verhältnis von Accommodation und Konvergenz zur Tiefenlocalisation. [Criticism and repetition (in modified form) of Wundt's experiments (*Beiträge z. Th. d. Sinnesw.*). Neither internal nor external muscle sensations are criteria of the depth-value of a fixated point. Importance of the conscious voluntary impulse in the cognition of relative distance. This cognition a matter of interpretation, not of sensation. The accommodation factor experimentally examined.] F. Auerbach—Erklärung der Brentanoschen optischen Täuschung. [Explanation in terms of the influence of indirect vision upon direct; the unequal peripheral lines render the central and equal apparently unequal. A quantitative determination, from this standpoint, hints at a constancy of the relative sensible discrimination. *Cf.* Knox, in *A. J. of Ps.*, vi. 3.] A. König—Eine bisher noch nicht beobachtete Form angeborener Farbenblindheit (Pseudo-monochromasie). [Form intermediate between connate total colour blindness (quality), and red blindness (quantitative distribution of brightness in the spectrum).] Th. Wertheim—Ueber die indirekte Sehschärfe. [Impossibility of a mathematical formula to express the relation between central and peripheral vision: factors are distance of indirectly seen point from the fixation point, and breadth of the field of vision in the particular meridian investigated. Difference between the two visions due to anatomical and functional retinal facts. Influence of practice.] Besprechungen. Heft 4. W. Preyer—Die Empfindung als Funktion der Reizänderung. [The result of a nervous stimulation increases and decreases according to the rapidity of alteration of the stimulus magnitude and the distance between the limiting values, within which the positive or negative variation of the stimulus magnitude takes place. The sensation is a sensed stimulus difference.] L. W. Stern—Die Wahrnehmung von Helligkeitsveränderungen. [For momentary illuminations Weber's law holds. Laws of the duration of change and of the relative sensibility, in direct and indirect vision. Time of reaction to gradual change. Psychology: two modes of perception: (*a*) comparison of two phases, (*β*) momentary impression of transition. Possibility of a specific transition-sensation.] E. Toun—Ueber die Gültigkeit von Newton's Farbenmischungsgesetz. [The law is only applicable within narrow limits of ordinary intensity.] Dr Somya—Zwei Fälle von Grünsehen. [Due to changes in the *chorioidea?*] Litteraturbericht. [Ziehen on Wundt's fourth edition.]

Vierteljahrsschrift für wissenschaftliche Philosophie. xviii. Jahrgang, Heft 3. H. Rickert—Zur Theorie der naturwissenschaftlichen Begriffsbildung. [The function of Concepts is to overcome the otherwise insurmountable obstacle to the progress of knowledge presented by the infinite multiplicity of sensible phenomena. The meanings of words as applied in ordinary life constitute a rudimentary stage of conception. They possess generality without precision. In order to give definite fixity to their vague and variable import it is necessary to go back to intuition, and to recall concrete examples. But this is not sufficient. The essential features have to be definitely disengaged from the mass of sensible detail in which they are imbedded. This can only be effected by a series of explicative propositions. Such propositions are not merely verbal. In so far as they have scientific value they express a real synthesis. But this synthesis and the corresponding analytic judgments which formulate it are, to begin with, relatively empirical and contingent. The third and last stage consists in the formulation of necessary and universal connexions. Only when it has reached this final development is the concept capable of representing the order of nature as a whole. A good article. But we think

that the antithesis between percept and concept is too sharply drawn. Perception is itself a means of "conquering" the multiplicity of sensible phenomena. It involves a certain kind of generalisation and is in fact the most rudimentary stage of conception.] A. Marty—Ueber subjectlose Sätze und das Verhältniss der Grammatik zu Logik und Psychologie. [Follows up controversy with Sigwart. Many points are raised which S. would do well to consider seriously. We do not however think that Marty is right in his main contention,—that impersonal propositions have no subject.]

Philosophische Monatshefte. Bd. xxx., Heft 5 u. 6. K. Vorländer—Ethischer Rigorismus und sittliche Schönheit. [An historical account of the influence of Kant on Schiller. Schiller's correspondence with Körner and Goethe is carefully sifted as well as his writings on Aesthetic.] O. Külpe—Aussichten der experimentellen Psychologie. [Suggestions as to improvements in method and a very brief indication of the present position of research in the several departments of experimental Psychology.] A. Spir—Von der Unsterblichkeit der Seele. [The desire for personal immortality is an expression of egoism.]

Zeitschrift für Philosophie und Pädagogik. Erster Jahrgang, Heft iv. O. Flugel—Zur Religionsphilosophie und Metaphysik des Monismus. R. Wolf—Noch einmal die Schmidsche Kirchengeschichte. E. Thrändorf—Entgegnung. O. W. Beyer—Zur Errichtung pädagogischer Lehrstühle an unseren Universitäten. E. Meyer—Das Ziel des Geschichtsunterrichts.

Zeitschrift für Philosophie und philosophische Kritik. Bd. 104, Heft 2. A. Döring—Das Weltsystem des Parmenides. [An attempt to reconstruct the cosmology of Parmenides. Döring attaches much importance to it, as the first fruitful and permanently influential cosmological system. The metaphysical side of the Parmenidean teaching is not discussed.] Jakob Kolubowsky—Die Philosophie in Russland. A. Lasson—Jahresbericht über Erscheinungen der philosophischen Litteratur in Frankreich aus den Jahren 1891—1893.

Philosophisches Jahrbuch. Bd. vii., Heft 3. Gutberlet—Ueber den Ursprung der Sprache (conclusion). [Noirée and Max Müller, quoted about the 'synergastic' theory of language, are criticized. Thought is not necessarily dependent on language, but, as Voit's experiment shows, exists in its absence. The deaf have ideas *before* they learn to communicate them; witness D'Estrella. The *clamor concomitans* of an action suggests a word, but the idea existed beforehand. Reason makes speech, not speech reason.—Can man then create a language of his own? Yes. Children, as several examples prove, are able to do so; *a fortiori* adults.—The origin of language is by Wundt said to be in voluntary action; by Marty, in the progressive choice of certain sounds; by Borinski, in the principles of phonetics.—The Christian philosopher ascribes the origin of language to God, who gave Adam a wonderful creative power, and to his helpmate, the faculty of guessing what he meant.] Reitz—Die Aristotelische Materialursache. [Aristotle, for whom the material Cause is, like the others, a real factor of that which is, gets to matter by analysing the process of composition and decomposition from which a new substance arises; this alone is the substantial cause.—He however, does not always understand the word in the same sense.—When he follows the *logico-metaphysical* view, he gets matter as the substratum of changes (an entity which in a sense is a

non-entity), the possibility of receiving forms (a non-entity which in a certain sense is an entity).—But from the historical standpoint, when he parts company with Plato, he makes it out to be the source of accidental properties, and the principle of individuation. (To be continued.)] Schirotzky—Zu Kant's Schrift: Die Religion innerhalb der Grenzen der blossen Vernunft. [This is a collection of extracts from Kant's letters to Staudlin, from a Cabinet Order addressed to him (Kant) and his reply to it, showing the opposition of theological censors to his work; together with a short exposition of some ideas which it contains.] Pesch S. T.—Dr Al. Schmid über die Erkenntnisslehre. [A favourable, but somewhat dry summary of Dr Schmid's work, which deals with the Theory of Cognition from a Neo-Scholastic point of view. "Scholasticism," says Schmid, "is the *philosophia universalis et perennis;* its revival is not a return to the old form, but the re-assertiou and development of what was good therein."]

Pflüger's Archiv f. die gesammte Physiologie. Vol. 56, Heft 10, 11, 12. L. Hermann—Beiträge zur Lehre von der Klangwahrnehmung. Vol. 57, Heft 1, 2. R. Hilbert—Die individuellen Verschiedenheiten des Farbensinnes zwischen den Augen eines Beobachters. J. R. Ewald—Die centrale Entstehung von Schwebungen zweier monotisch gehörten Töne. Heft 5, 6, 7. M. v. Vintschgau—Physiologische Analyse eines ungewöhnlichen Falles partieller Farbenblindheit. E. Hering—Ueber einen Fall von Gelb-Blaublindheit.

Rivista Italiana di Filosofia. July—August. F. De Sarlo—La vecchia e la nuova Frenologia. [An historical and critical survey of the problem of localization, concluding that a true psycho-physics can exist only for the elementary psychical facts of sensibility and movement.] P. d' Ercole—Carlo Lodovico Michelet e l' Hegelianismo. [Biographical account.] Bibliografia etc.

X.—NOTES.

"A LOGICAL PARADOX."

In regard to Lewis Carroll's problem, in the last No. of *Mind*, it may be worth while to notice that the conditions, as given (p. 438), are not "If C is true, then if A is true B is false and true;" but the second premiss "If A then B" is stated as a fact, quite independently of the truth of C; while "If A, then not B" is *not* stated as a fact, but as being possibly false. If we had any right to deny its possible falsity (e.g. if we were also told as a fact that C is true) then, no doubt, we should be compelled to make "If A then not B" compatible with "If A then B" at any cost; but, in the absence of this right, where is the compulsion? Moreover, the two propositions *can* only be compatible on the assumption that A is false; and this assumption is not only not warranted by anything in the premisses, but would render each of the 'compatible' propositions meaningless *as hypotheticals;* they would become mere denials of the existence of certain classes. Why should we go out of our way to make two apparently contrary propositions compatible at such a cost as this?

Surely the *falsity* of the antecedent clause in a hypothetical does not render the hypothetical 'illegitimate' (i.e. meaningless), but only the *assumption of its falsity.* It is of the essence of a hypothetical that both its clauses should (in the absence of further information) be regarded as *possibly* false. But they must also then be regarded as *possibly* true. Any knowledge we may have that either A or B *is* either false or true, must stand outside the hypothetical "If A, then B,"—must be related to it either as minor premiss ("A is true" or "B is false" or else as conclusion ("A is false" or "B is true"). To attempt to make the conclusion a part of the hypothetical itself is to destroy the hypothetical character of the assertion made. The major premiss, taken by itself, represents a stage of ignorance which is lost as soon as we accept the conclusion.

We are asked what difference in meaning, if any, exists between the following propositions:—

(1) A, B, C, cannot all be true at once,
(2) If C and A are true, B is not true,
(3) If C is true, then if A is true B is not true,
(4) If A is true, then if C is true B is not true.

It is clear that (1) is a complex proposition containing (2) as well as the following:—

If B and A are true, C is not true,
If B and C are true, A is not true.

As regards (2) (3) and (4), their difference of meaning is perhaps best shown by contrapositing them,

(2) is then equivalent to "If B is true, either C or A is false, or both are,"
(3) „ „ "If B can be true while A is true, C is false,"
(4) „ „ "If B can be true while C is true, A is false."

In the geometrical example, the angles at L and M are originally given equal. We are thus prevented from regarding the falsity of B as possible. Proposition (2) therefore gives no information, and proposition (1) becomes simply "If C is true, A is false," or (by contraposition) "If A is true, C is false,"—i.e. "If such lines form a triangle its sides are equal."

Alfred Sidgwick.

A LOGICAL PARADOX.

I PRESUME Mr Lewis Carroll's position to be that the problem raised by him in the last number of *Mind* presents a conflict between common sense and the rules of logic. It appears to me certain that the rules of logic when properly applied agree with the results of common sense.

The two disputants may agree in expressing the problem in the following form:—

Principal Antecedent: *Carr is out.*
Principal Consequents: *If Allen is out, Brown is in*;
If Allen is out, Brown is out.

Uncle Joe uses the general method of the *reductio ad absurdum*, for he disproves the principal antecedent by maintaining that the consequents to which it leads are incompatible. But in reality the two sub-hypotheticals which form his principal consequents are *not* incompatible. For in saying that two propositions are incompatible we mean that their combination involves a logical impossibility. Now the combination of these sub-hypotheticals does *not* involve any impossibility, but involves merely the denial that *Allen can be out.* In other words, we combine two hypotheticals, having the same antecedent with contradictory consequents, to prove the falsity of the common antecedent. Here we interpret the principle of the *reductio ad absurdum* in precisely the same way as Uncle Joe, but we apply it to the *sub-hypotheticals* instead of to the *principal hypotheticals.* Since, then, the two sub-hypotheticals taken separately would prove "Allen is in," the two principal hypotheticals of which these are the consequents prove "If Carr is out Allen is in."

The larger questions relating to the interpretation of the hypothetical have been implicitly answered in the above solution. Mr Lewis Carroll asks whether a hypothetical whose antecedent is false may be regarded as legitimate. Surely the common example "If A then B but not B $\therefore$ not A" affords an obvious answer in the affirmative to this question. And every *reductio ad absurdum* argument is a more or less direct application of the same principle. As regards the hypothetical of the general form "If A then B" we have interpreted this as the mere denial of the conjunction "A true and B false." The consistent application of this interpretation yields the above solution to the whole problem and reduce to equivalence the four propositions numerated in Mr Lewis Carroll's note. In other words we must *in general* interpret a hypothetical in the manner expounded in the article on the *Logical Calculus* in *Mind* of January 1892. The solution is, however, independent of any particular views that I have there brought forward, and would be endorsed by all logicians who have applied the rules of logic to complicated problems, though their answers might assume various apparently different forms.

W. E. JOHNSON.

A MODIFICATION OF ARISTOTLE'S EXPERIMENT.

BY W. H. R. RIVERS.

THE generally received explanation of the illusion in Aristotle's experiment is that two parts of the skin are being touched which in the ordinary position of the fingers have always been touched by two objects. If this is correct, we might expect to find that if two parts of the skin ordinarily

touched by one object are simultaneously touched by two objects, there would be the illusive perception of one object, and such is the case. The illusion occurs most readily in a person unaware of the nature of the experiment. His eyes should be closed and his fingers crossed as for Aristotle's experiment. If the outer sides of the crossed fingers (the ulnar side of the index and the radial side of the middle finger) are simultaneously touched by two rods, such as pencils or penholders, in many cases the observer experiences the illusion of having one rod between his fingers; "I feel as if you had a single rod going between my two fingers and touching both." The illusion has occurred in more than half of the people with whom I have tried the experiment. It is not so easily obtained as the better known form, but this is the necessary result of several difficulties attending the modified experiment. It is difficult to make the contacts simultaneous, and several observers have noted the successive touches and judged that there were two objects; if the fingers are not touched on corresponding spots, i.e. the index or the ring finger nearer the tip than the middle finger, the illusion may not occur; again if too much pressure is exerted on the fingers, the observer may recognize that such pressure would not arise from one object. Those observers in whom the illusion does not occur, do not usually localize the touches correctly, but suppose that the two contacts are on the opposite sides of one finger.

A very interesting answer was received in one case, viz. that three touches were felt, one on each finger, and a third between the fingers, and that the third contact differed from the other two in not being cold (metal rods were being used).

In a note in the first volume of *Mind*, Croom Robertson pointed out the striking illusion of spatial reference which occurs when the crossed fingers are touched one after the other, and was inclined to regard Aristotle's illusion as secondary to this illusory localization in space; "we perceive the contacts as double because we refer them to two distinct parts of space." Such an explanation would also apply to this modification, the contacts being perceived as single because we refer them to one part of space. If we cross the index and middle fingers and hold them vertically, so that the radial side of the middle finger is uppermost, and then with closed eyes touch successively the upper and lower borders, the two touches will be localized very close to each other, if not actually in the same point in space.

Aristotle's illusion may be regarded as the analogue in the tactile sense of double vision. Here, following an unusual position of the eyes, an object is seen double because it stimulates parts of the retinae ordinarily stimulated by two objects, and the modification has also its analogue in the visual sense. When parts of the retinae ordinarily stimulated by one object are stimulated by two objects either by convergence of the eyes to a point nearer than the object or divergence to a point beyond, there is an illusion of one object, the binocular combined image. In the case of vision however this combined image is accompanied by the two original objects, and it is this which gives especial interest to the observation recorded above in which three touches were felt. Though this phenomenon has only been experienced by one observer, it supports the supposition that the single image which many observers obtain from the two contacts is a combined image analogous to the binocular combined image.

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